

The Mining Journal.

RAILWAY AND COMMERCIAL GAZETTE.

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

No. 1754.—VOL. XXXIX.

LONDON, SATURDAY, APRIL 3, 1869.

(WITH SUPPLEMENT) (STAMPED .. SIXPENCE, UNSTAMPED .. FIVEPENCE)

MR. JAMES CROFTS, STOCK AND SHAREBROKER,
No. 1, FINCH LANE, CORNHILL.

(Established 1842.)
Mr. Crofts transacts business in the way of PURCHASE or SALE of every description of stocks, but particularly BRITISH MINES, at net prices. All orders meet with the utmost punctuality, and advice given as to the nature and eligibility of INVESTMENTS when required.

The continued rise in tin is creating an immense demand for shares in good tin mines. The advance of the last month is £17 a ton, and it is still expected to advance. At the GREAT ROYALTY TIN MINE (Roche, Cornwall), in 4998 shares, 4 tons of tin will be raised per month, at a total cost of £50 per ton. Black tin is now upwards of £80, which will give a profit of £50 on every ton raised. The shares at present are 10s., but they will shortly rise to at least double or treble this price. The mine is situated at the head of the celebrated Goss Moors, from which millions worth of tin has been raised. Capt. Parkyn, the agent, writes—"The more I look into this valuable property the better I am pleased with it, and a great deal more than 4 tons of tin a month will be raised in a short time—when the shaft is down. The fact is, these lodes are the best work for tin I ever saw in all my experience, and cannot fail in yielding immense returns and profits. We have five lodes in the set. The new lode, or what I call the great north lode, which I discovered since I saw you, is 6 feet wide, containing splendid rich tin. It is the best property I ever saw."

Capt. Parkyn's report will be found in its place in this day's Journal.

MR. JOHN BUMPUS, 44, THREADNEEDLE STREET,

has FOR SALE the following shares, free of commission:—
100 Anglo-Brazilian, 8s. 100 Frontino, 19s. 6d. 50 Royalton, 27s. 6d.
50 Australian United 50 Great Vor, £17½. 50 So. Condurrow, 26s.
(Gold), 28s. 25 Gonama, 19s. 3d. 20 South Dartmoor, 37s.
25 Bedford United, £23½. 75 Gen. Brazilian, 16s. 3d. 10 St. John del Rey, £18½.
20 Brynpostig, 35s. 10 Great Laxey, £19½. 50 South Merilyn (offer wanted).
25 Bryn Gwlog, 8s. 6d. 35 Gt. No. Laxey, 29s. 9d. 5 Tincroft, £19½.
50 Carn Camborne, 12s. 15 Marke Valley, £9 13 2 W. Wh. Seton, £200½
15 Chiverton, £3 10s. 3d. 25 New Lovell, £2 11s. 3d 50 West Drake Walls, 7s.
75 Chontales, £1½. 25 No. Levant, £10 18s 9 3 W. Chiverton, £21½.
50 Drake Walls, 28s. 6d. 25 North Crofty, 28s. 50 West Godolphin, 30s.
50 Don Pedro, £1½. 25 Pestarena, 25s. 5 W. Rose Down, £18.
35 East Grenville, £6½. 30 Prince of Wales, 22s. 6 25 West Basset, 33s. 6d.
25 E. Carn Brea, 6s. 9d. 100 Princess of Wales, 5s. 6 10 Wheel Uny, £3 18s. 9d.
30 East Rosewarne, 5s. 3d. 10 Penhalls, £5½. 50 Yudanamat, £1 13 9
10 East Caradon, £7 18 9 100 Redmoor, 5s. 6d.
15 East Lovell, £2½. 100 Rosca Grande, 23s. 9d.
10 Frank Mills, £3 18s. 9

MR. WILLIAM WARD, STOCK AND SHAREDEALER,

No. 29, THREADNEEDLE STREET, LONDON, E.C.

MR. THOMAS SPARGO, STOCK AND SHAREDEALER,

224 & 225, GRESHAM HOUSE, OLD BROAD STREET, LONDON, E.C.

JOHN RISLEY, (SWORN) STOCK AND SHAREBROKER,

48, THREADNEEDLE STREET, LONDON, E.C. Bankers: London and Westminster, Lothbury.

MR. THOMAS THOMPSON, MINING OFFICES,

12, OLD JEWRY CHAMBERS, LONDON, E.C.

MR. WILLIAM MARLBOROUGH, 1, GREAT ST. HELEN'S,

BISHOPSGATE STREET, LONDON, E.C. (Established 14 years).

MR. EDWARD BREWIS, STOCK AND SHAREDEALER,

No. 34, OLD BROAD STREET, LONDON, E.C., has BUSINESS, for cash or account, in all the various securities at best market prices.

SPECIAL BUSINESS to buyers' or sellers' advantage in Chontales, Prince of Wales, West Godolphin, Don Pedro, Anglo-Brazilian, Royalton, Lucy Phillips, and Taquaril. Bankers: The Alliance Bank, London, E.C.

MR. JAMES HUME, STOCK AND SHAREDEALER,

74, OLD BROAD STREET, LONDON, E.C.

20 Chiverton, £4. 20 Uny, £4. 10 East Caradon, £8½.
5 W. Chiverton, £5½. 50 Creber, 12s. 50 Taquaril, 4s. 6d. pm.
50 Prince of Wales, 22s. 50 Great Laxey, £19½. 5 Gt. Laxey, £19½.
10 Great Vor. 20 East Grenville. 50 So. Condurrow, 26s. 6d.
50 Chontales, £1½. 50 Mary Florence. 300 Redmoor, 5s.
60 North Treskerby. 20 New Lovell, £2½. 20 Don Pedro.
50 Frontino, 19s. 6d.

Business transacted for cash or account. Bankers: The London Joint-Stock Bank.

MR. J. H. COCK, STOCK AND MINING SHAREDEALER,

74, OLD BROAD STREET, LONDON, E.C.

Fifteen years' experience in Cornwall and London. SPECIAL BUSINESS in Botallack, Boscan, South Condurrow, North Treskerby, Margaret, Rosewall Hill, North Levant, and New Lovell.

J. H. C. should be consulted on any of the above mines at once.

MR. T. ROSEWARNE, 81, OLD BROAD STREET,

LONDON, E.C.

T. R. has BUSINESS in the following mines, at close market prices:—Chiverton, East Caradon, West Chiverton, Devon Consols, Marke Valley, West Drake Walls, East Basset, Prince of Wales, Wheel Seton.

WHEEL BULLER shares should be bought, even at present prices; also, Bedford Consols, Bedford United, Chiverton Moor, East Caradon, and Tincroft.

I can advise the purchase of several mines which are safe for a great rise during the next nine months, and not high-priced shares; the chances are that for £10 investors may realise £100; as, if the machinery on the mines were sold to-morrow, it is worth nearly the money the shares are now selling at. I shall be glad to inform any parties who may call at my office from the hours of 10 to 4 the mines I have selected and their chances of success, as metals are likely to rise higher.

T. R. should be consulted immediately respecting Wheel Grenville, East Grenville, Chontales, and Don Pedro.

Money advanced to any extent on good mining shares. Office hours Ten to Four. Bankers: Bank of England.

MR. E. J. BARTLETT, STOCK AND SHAREDEALER,

No. 30, GREAT ST. HELEN'S, LONDON, E.C., has SPECIAL BUSINESS in West Godolphin, Summer Hill, North Pool, South Condurrow, South Merilyn, East Lovell, Great South Chiverton, North Levant, Bryn Gwlog, East Rosewarne, East Lovell, Minera Boundary, Spear Moors, East Carn Brea, North Treskerby, Wheel Agar, Calbeck Fells, and Great North Laxey.

BUYER of Spear Moors, West Godolphin, and Great North Chiverton. Holders of Stock difficult of sale in the open market may find purchasers on application to the above.

MR. J. R. PIKE has FOR SALE the undermentioned SHARES

at the following net prices:—
50 Chiverton, £3 15s. 30 No. Treskerby, 17s. 3d. 100 W. Drake Walls, 6s. 6d.
25 Chiv. Moor, £3 15s. 3d. 50 So. Condurrow, £1 5s. 20 Wheel Uny, £3 17s. 6d.
20 Cook's Kitchen, £16½. 10 St. Ives Consols. 100 W. Pr. of Wales, 3s. 9d.
50 Creber, 11s. 3d. 50 South Grenville. 50 Wheel Agar, £1 6s. 6d.
10 East Caradon, £7 17s. 3 West Frances, £52. 25 West Basset, £1 19s.
20 East Lovell, £29s. 6d. 100 Tamar Valley. 25 East Reeth, £1.
25 Mineral Bottom, £23½. 4 Wheel Jane, £38. 50 Badnick Consols, £1.
40 North Crofty, £1 10s. 20 W. Grenville, £23½. 30 Drake Walls, £1 2s. 6d.
20 New Lovell, £2 13s. 9d. 10 W. Killy, £25s. 6d. 5 Carn Brea, £21 10s.
50 Prince of Wales, £1 2s. 1 Wheel Seton, £7s. 5 Stray Park.

Parties may avail themselves of the above medium for the disposal of shares gratuitously unless sales are effected, when a commission of 1 per cent. will be charged.

All shares for insertion should reach Mr. PIKE's office on or before Friday.

Mr. PIKE has shares for sale in two tin mines that are already self-supporting, are free of liabilities, and will, no doubt, become good paying properties before many months. Full particulars may be had on application.

Established in Cornwall and London 20 years. 3, Crown Chambers, Threadneedle-street, London, E.C.

MR. GEORGE BUDGE, STOCK AND SHAREDEALER,

No. 4, ROYAL EXCHANGE BUILDINGS, LONDON, E.C. (Established 20 years), is a SELLER at net prices of:—

50 Prince of Wales, 21s. 9d.; 40 West Basset, 38s. 9d.; 100 Lovell Consols; 2 West Chiverton, £22; 35 East Grenville, 45s. 3d.; 50 West Drake Walls, 5s. 3d.; 70 Tamar Valley, 14s. 3d.; 100 Gwydyr Park, 3s. 6d.; 50 West Prince of Wales, 6s.; 5 Polberron; 75 North Jane, 14s. 6d.; 60 Drake Walls, 10s. 6d.; 30 North Treskerby, 17s. 6d.; 30 Cuddra; 10 Maes-y-Safn, £20; 4 Minera; 10 Penhalls, £24½; 30 South Herodfoot, 27s. 3d.; 35 Pedu-an-drea; 100 Mining Association; 40 Wheel Grenville, 6s.; 70 Great South Chiverton; 50 Chontales, £1 11s. 3d.; 50 Don Pedro, £3 18s. 9d. prem.; 100 General Brazilian, 6s. 9d. prem.; and 300 Taquaril.

SPECIAL BUSINESS in Tin Valley and West Drake Walls.

CORNISH AND FOREIGN MINES—

TO SHAREHOLDERS AND OTHERS.

PETER WATSON'S "WEEKLY MINING CIRCULAR AND SHARE LIST—SYNOPSIS OF CORNISH AND DEVON MINES," of Friday, April 2, No. 526, Vol. XI., price 6d. each copy, forwarded on application, contains information on the following mines:—

The Van.	North Wheel Crofty.	Chiverton.
Wheel Trelawny.	East Lovell.	Great Wheel Vor.
Wheel Great Work.	Wheel Grenville.	Great North Laxey.
South Great Work.	Prosper United.	Great Western.
East Wheel Seton.	Botallack.	East Basset.
	Frontino and Bolivia.	

With Remarks on the Tin Trade, Result of the Banca Sale, Advance in the Bank Rate of Discount, &c.

INVESTMENT OR SPECULATION.—A SELECTED LIST OF

RAILWAYS, BANKS, MINES, COLONIAL SECURITIES, FOREIGN GOVERNMENT BONDS, &c., forwarded to bona fide investors on application, in addition to the high rate of interest many of the above are paying, there is now every probability of a great rise in market value.

PETER WATSON, STOCK AND SHAREDEALER,

79, OLD BROAD STREET, LONDON

(three doors only from Hercules-passage, entrance to the Stock Exchange).

(Twenty-four years' experience.)

Bankers: The Alliance Bank, and the Union Bank of London.

References given and required (when necessary) in all the principal towns of the United Kingdom.

THE LONDON DAILY RECORD—STOCK AND SHARE

LIST—STOCK EXCHANGE SECURITIES. Published every evening at 5 o'clock. It contains the latest prices of railways, banks, mines, foreign stocks and bonds, financial, insurance, and miscellaneous shares, remarks on the daily rise and fall in prices, with advice as to purchase and sales. Annual subscription, £1 1s.; by post, £2 2s.; monthly subscription—by post, 4s.; single copy, 1d.; by post, 2d.

PETER WATSON, Stock and Sharedealer, 79, Old Broad-street, London.

MR. EDWARD COOKE, STOCK AND MINING SHAREDEALER,

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Shares in all the dividend and best progressive British mines also dealt in.

Price list sent free on application. Bankers: Alliance Bank.

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No. 42, CORNHILL, LONDON, E.C.

MR. J. B. REYNOLDS, STOCK AND SHAREDEALER,

ETHELBURGA HOUSE, BISHOPSGATE STREET WITHIN, E.C.

Established Eleven Years. Bankers: City Bank, London, E.C.

MR. JOHN MOSS, STOCK AND SHAREDEALER,

ST. MICHAEL'S CHAMBERS, 42, CORNHILL, E.C.

Business as BUYER or SELLER in Frontino, Chontales, Don Pedro, General Brazilian, and Taquaril Gold shares.

Bankers: City Bank, Finch-lane, E.C.

MR. WILLIAM SEWARD, STOCK AND MINING SHARE

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Every description of shares BOUGHT and SOLD at the best market prices.

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BUYS and SELLS Consols, Railway and Mining Shares at the closest market prices. Daily Price Lists on application.

HORRABIDGE CONSOLS.—Mr. GREENE recommends immediate applications for shares in this highly-promising tin mine. A limited number of shares can be secured on application to Mr. GREENE.

YAN MINE AND DISTRICT.—M. G. is in a position to give reliable information, having conducted for years past mining operations in this rich lead-bearing country.

WHEEL ARGENT SILVER AND COPPER MINE, in 4000 shares.—M. G. has FOR SALE a limited number of shares at 10s. per share. This mine has made a profit of 50 per cent. on the last eight months' working, and during the last month has wonderfully improved. Capt. Gifford, the manager of Prince of Wales, in his report of the latter mine (see Mining Journal of the 13th inst., page 180) says—"I have, in company with my son, been over the south part of your sett on the silver lode, from which at the neighbouring mine, South Prince of Wales (Wheel Argent), was raised and sold during the last three months £400 worth of silver, at a cost not exceeding £50. An early application should be made, as this is the first and only opportunity the public will have of securing an interest in this fine property."

TAMAR VALLEY SILVER-LEAD AND NEW CLIFFORD COPPER MINES are both looking well. See reports in this day's Journal.

Established Twelve Years.—Twenty-four Years' Experience.

MR. F. W. MANSELL, 44, THREADNEEDLE STREET,

LONDON, has the following SHARES FOR SALE, for cash or account, at net prices:—

25 Chiverton, £3½.	15 Marke Valley, £9.	10 Tincroft, £18½.
50 Drake Walls, 19s.	50 New Lovell, £2 11s. 3d.	5 West Chiverton, £52.
10 East Grenville, £6½.	20 North Downs, 12s. 6d.	5 Wheel Seton, £1½.
25 East Caradon, £8 13 3	70 No. Treskerby, 17s. 6d.	50 Cape Copper, £13.
10 East Lovell, £9½.	150 Prince of Wales, 22s.	150 Chontales, £1½.
30 Great W. Vor, £16½.	300 Redmoor, 5s.	150 Gen. Brazilian, 17s. 6d.
10 Gt. Laxey, £19½ (ex div.)	50 So. Condurrow, 26s.	(10s. paid).
	150 Tamar Valley, 12s. 6d.	15 St. John del Rey, £18½
	(call paid).	100 Anglo-Argent, 20s. 6

Shares may be bought for future payment. Every facility afforded.

SOUTH CONDURROW.—No time should be lost in the purchase of these shares. Every information may be had on application.

Bankers: London Joint Stock Bank.

INVESTMENT FOR CAPITAL.

MR. F. W. MANSELL, in February, 1868, under this heading,

recommended the undermentioned mines for immediate purchase:—

Wheel Emily Henrietta, at £10, present price £20, have been £40.

Wheel Grenville, at 30s., present price 52s. 6d.

New Wheel Lovell, at 20s., present price 50s., have been 70s.

Again in October, 1868, the following were strongly recommended for immediate purchase:—

East Caradon, at £3½, present price £8, have been £10.

North Treskerby, at 7s. 6d., present price 17s. 6d., have been 20s.

Great Botallack, at £2½, present price £2½, have been £3½.

There is no class of investment pays so well as British mines if judiciously selected. To command this, competent practical agents are retained by Mr. F. W. MANSELL to specially report upon all promising mineral properties in the United Kingdom.

To be had on application, a Selected List of Mines, both Dividend and Progressive, which are certain to take a prominent position in the market during the present year.

Daily Price List free. 44, Threadneedle-street, London.

INVESTMENT, LOAN, AND BANK AGENCY.

Established 1839. Every information afforded to Capitalists, Trustees, and others who seek Investments of a strictly eligible and safe character.

Investments may be effected in Foreign Stocks, Colonial Bonds, Railway, Mine, and other Shares, subject to quarterly, half-yearly, or annual payments, upon advantageous terms.

LOANS granted, for one year or any shorter period, on Stocks and Shares having a market value.

Five per cent. interest allowed upon DEPOSITS of all amounts.

Money and Finance Agency Business generally undertaken. RICHARD TAYLOR AND COMPANY. No. 12, Clement's-lane, Lombard-street, London, E.C.

GOLD AND SILVER MINING SHARES.—

RICHARD TAYLOR AND COMPANY are DEALERS in the FOLLOWING SHARES at close market prices, free of commission, either for cash or time on—

ANGLO-ARGENTINE.	FRONTINO AND BOLIVIA.	ROSSA GRANDE.
ANGLO-BRAZILIAN.	GENERAL BRAZILIAN.	SAO VICENTE.
CHONTALES.	PESTARENA.	ST. JOHN DEL REY.
DON PEDRO.	PORT PHILLIP.	TAQUARIL.
		UNITED MEXICAN.

Investment, Loan and Bank Agency. No. 12, Clement's-lane, Lombard-street, London, E.C.

MR. T. P. THOMAS, MINING AGENT AND

SHAREDEALER, 77, OLD BROAD STREET, LONDON.

Lead mining in the Counties of Cardigan and Montgomery has lately been very successful, and likely to continue so.

T. P. THOMAS, having a thorough knowledge of these districts, is at all times prepared to make SELECTIONS for investors.

WEST CHIVERTON, WHEEL CHIVERTON, MINERAL BOTTOM, and other Mines in the Chiverton District.—Investors and speculators can have reliable information as to the present position and future prospects of the above-named mines on application to T. P. THOMAS.

MR. CHARLES THOMAS, MINING AGENT, GENERAL SHAREDEALER AND AUCTIONEER,

3, GREAT ST. HELEN'S, LONDON, E.C.

Third Edition, price One Shilling; post-free, fourteen stamps.

MINING FIELDS OF THE WEST:

A PRACTICAL EXPOSITION OF THE PRINCIPAL MINES AND MINING DISTRICTS OF CORNWALL AND DEVON.

Published by CHARLES THOMAS, At No. 3, Great St. Helen's, London, E.C.

MR. W. H. LANYON,

(Late of Kennall Gunpowder Company) GUNPOWDER MERCHANT, TRURO.

BARTLETT AND CHAPMAN, STOCK AND SHAREDEALERS,

TRANSACTS BUSINESS in every description of Stocks and Shares, at the closest market prices, free of commission, and can well advise as to the sale or purchase of Railways, Mines, Banks, &c.

And are in a position to give special and trustworthy information as to the present condition and future prospects of Lovell Consols, Tin Valley, Wheel Jane, West Chiverton, North Jane, Great South Chiverton, and the Providence Mines.

Application for Tin Valley shares should be made without delay. We have a limited number for disposal at 20s. each. A substantial and speedy rise in the price of these shares may be confidently anticipated.

Bankers: London and Westminster, and Alliance. Offices, No. 2, Bucklersbury.

BARTLETT AND CHAPMAN'S "INVESTMENT CIRCULAR

AND FINANCIAL RECORD" (Published on the first Wednesday in each month)

Comprises—A Comprehensive Review of the Stock, Share, and Money Markets; an Enumeration and Comparison of the Whole Circle of Investments; and Valuable Suggestions for Purchase or Sale.

** Sent free on application. 2, Bucklersbury, London, E.C.

MR. HENRY MANSELL, 44, THREADNEEDLE STREET,

LONDON.

Mr. H. M. can recommend three mines for an immediate advance in price. Thirteen Years' Experience.

Bankers: London Joint Stock Bank. References exchanged.

MR. C. A. POWELL, BRITISH AND FOREIGN STOCK AND SHAREDEALER,

No. 1, PINNER'S COURT, OLD BROAD STREET, LONDON, E.C.

Business transacted in every description of negotiable securities at market prices.

SPECIAL BUSINESS in Frontino, Chontales, Don Pedro, St. John del Rey, Pestarena, General Brazilian, Taquaril, Wheel Uny, Penhalls, Prince of Wales, Brynpostig, Mid-Wales, and North Treskerby.

WANTED an offer for 50 or 100 St. Just Amalgamated.

Business transacted at net prices. References exchanged. April 2, 1869. Bankers: City Bank, Finch-lane.

FRONTINO AND BOLIVIA (SOUTH AMERICAN) GOLD MINING COMPANY (LIMITED).

Mr. POWELL has pleasure in calling attention to the very much improved position of this company. Next to the highly successful Don Pedro, whose profits exceed £50,000 a year, or over 100 per cent. upon the called-up capital. It would appear that the Frontino and Bolivia properties are now the only other gold mines, except Port Phillip, actually realising a progressive monthly profit, and this notwithstanding a temporary drawback of a scarcity of water at the mines during the Christmas holidays. It is confidently anticipated that next month's advances will show even more successful results. The market for these shares is extremely firm, closing buyers at 18s. 6d. to 19s., at which price, even the present rate of monthly profits is equal to 10 per cent. It must be borne in mind that a material advantage with this company over others before the public is that the liability on uncalled capital is only 2s. 6d. per share, which a continuance of the present favourable returns from the mines will render quite unnecessary, except as a means ultimately of working the property on a much more extensive scale by the erection of additional mills. Mr. POWELL strongly recommends this enterprise to the attention of the mining public.

MR. G. D. SANDY, STOCK AND SHAREDEALER,

48, THREADNEEDLE STREET, LONDON, E.C.

Daily Price List on application post free. References exchanged.

MR. H. WADDINGTON, SHAREDEALER,

48, THREADNEEDLE STREET, LONDON.

INTENDING INVESTORS.—The "FINANCIAL GAZETTE,"

published by Mr. Y. CHRISTIAN, should be consulted with a VIEW to the SAFE EMPLOYMENT OF CAPITAL. It contains Original Articles, a Review of the Money Markets, and a selection of investments paying 10 to 17 per cent., and such information as is necessary to guide intending investors.

6, Bond-court, Mansion House, London, E.C. Bankers: Bank of England.

WALTER TREGILLAS, 122, BISHOPSGATE STREET

WITHIN, LONDON, E.C., DEALS in all STOCKS AND SHARES, either for cash or the fortnightly settlement.

SPECIAL BUSINESS in the following gold mines:—

Don Pedro. Rossa Grande. General Brazilian.

Original Correspondence.

COAL-CUTTING MACHINERY.

SIR,—The article in the *Mining Journal* of March 27 on Coal-Cutting Machinery, after describing the more prominent requirements of that class of machinery, goes on to state as follows:—

"With these facts in view several machines have been brought under public notice during the last seven or eight years, but most of them for all practical purposes were short lived, the greater part having scarcely survived the first stage of the Patent Office. Two or three, however, have managed to live, and aided by stimulants, in the shape of constant additions and improvements, are now doing good work."

Your correspondent has omitted to give the names and places where the two or three are doing "good work." I was not aware of the fact mentioned, and I have yet grave doubts whether there is a single coal-cutting machine doing regular work, excepting those made by ourselves. If I am mistaken your correspondent can easily set me right, and shall feel obliged to him for the information.

In respect to the two machines at West Ardsley, he is specific. He had the opportunity of seeing them do the work which he particularises, but I will venture to say that in no other case had he the means of verifying the statements made to him. Sanguine inventors are always going to do something wonderful, but they often miscarry, and in no branch of mechanism have the lofty promises been more numerous, nor the failures more conspicuous.

The improvements (Firth's patents) incorporated upon the original invention for cutting coal by compressed air have enabled us for the last six months to work daily with the utmost regularity—two machines cutting about 1000 tons per week, and this is by no means the limit of their capacity. There have been no failures of duty in either the machines or the motive-power, and allowing for the unfavourable conditions of working machinery in comparative darkness, at a distance of 1½ mile from the shaft, they work as perfectly as any machinery in the most favourable situations. The machines are portable, and easily managed; the men make good wages. The cutting of the coal is admirably executed, and its selling quality is improved. The mine is better ventilated than it ever was before, and is not only more comfortable to the workmen, but there is diminished liability to accidents. There is a great saving in timber and other stores, and there are some other and not unimportant advantages, which need not be referred to here.

These points are now settled, and in accomplishing them we have the satisfaction of feeling that we have not encroached upon the rights, or taken advantage of the labours, of any other person. The commercial results are eminently satisfactory to the proprietors of the colliery, but we believe that the greatest boon of all is to the working colliers.—*Leeds, March 30.* WILLIAM FIRTH.

ON ECONOMY IN THE SMELTING OF IRON IN SOUTH STAFFORDSHIRE—No. III.

In our second article we rapidly glanced at the progressive history of the iron trade, after which we gave a few particulars as to the resources of the ironstone in the Black Country coal field. The present article will deal more particularly with the enquiry into the resources of the coals existing in the same "mineral cellars." George Stephenson, when reflecting upon the great importance of this fuel as constituting one of the chief bulwarks of Great Britain's strength, said—"The Lord Chancellor now sits upon a bag of wool, but wool has long ceased to be emblematic of the staple commodity of England; he ought to sit upon a bag of coals." Black Country folk, however, need no quotations to convince them of the value of "black diamonds," even when existing in such prodigious quantities, but, at times, they do need reminding of the fact that Nature's provision is not inexhaustible, and that these "diamonds" are subject to the law of "scarcity increases value." This article has no special need to go into the question of competition as affecting the interests of particular industries. South Staffordshire has for some time been battling under this banner, and is now in front rank, doing her best to hold her position amid the smoke, din, and bustle of competitive engagements. Our excuse for meddling with this fierce combat is that being an outsider, quietly watching the movements, one can often direct to advantage, though not in the actual engagement; in fact, it is a pity that some of our leading combatants do not more frequently come out from the thick of battle and do more in the reconnoitering line. If this were done, we feel sure great improvements in attack and defence would be effected. South Staffordshire will, for many long years, be in a position to supply her demands for coal under certain conditions, to be pointed out. Dividing, as before, the coal basin into sections, we first glance at the southern section, with Dudley as the centre. It is well known that the meridian of coal resources is past. Lord Ward, however, may still pride himself on well-stored "cellars" of other commodities than valuable wines. He can, as yet, bid defiance to encroaching scarcity, for of late a large extent of property in the neighbourhood of Himley has been proved to contain the well known "Thick coal," and by virtue of the excellent management of the working and winning on the most economical principles, one acre will now mean something more than an acre did years ago, so far as produce is concerned. It is believed by many eminent geologists, Prof. Jukes and Beckett included, that the land now known as Penn Common and Baggaridge Wood, which adjoins the Himley Estate, will contain the same coals at a reasonable depth. Doubtless his lordship, when driven by scarcity of fuel, will turn his attention to this part of the coal field, and put all theory at rest by practical proof.

Besides Lord Ward's possessions in this section, many half-worked-out collieries exist, which contain ("more's the pity") more water than mineral. We might easily call attention to many hundreds of acres of "broken mining property," which, however, contain very significant resources of Thick, Heathen, and other coals, but which are completely inundated by water. We may reasonably state that some of these collieries would give a good supply of coals for upwards of twenty years. The works in the neighbourhood, which should be supplied by this "drowned" fuel, are being carried on with supplies from other parts of the coal field. In reference to this section, we would recommend the parties concerned to at once do something towards amalgamation, by which the necessary arrangements can be matured to drain the said property.

While on the subject of drainage, I would here endorse the sentiments expressed in your leading article, with reference to the drainage of the "Tipton pound." Some persons of ability should be commissioned to make minute enquiries as to the quantity of water to be pumped, and the expenses entailed, &c. If the many colliery owners do not at this critical juncture in the history of the coal trade band themselves together with harmony of feeling to accomplish difficulties affecting each in common, they will certainly be guilty of striking a death blow to the continued prosperity of this part of the county. We must look to clearing out of "broken mines" for a continuance of supply, as well as to economy in its application to manufacturing purposes for the extension of successful speculation in the coal and iron trades. We shall refer to the probability of coal being found more southward when we speak of the geological evidence in favour of an extension of coal fields.

Secondly, we can only glance at the middle section of coal basin, including the Bilston, Wednesbury, Willenhall, and Priestfield neighbourhoods. This section shows more evident signs of decay and age than the others. Here and there about Bilston and Priestfield may be seen the "old gin" at work drawing the "pickings" of old mines. Some are getting the coals from under furnaces which have become extinct for want of supply. Other pits are sending forth coals which 20 years ago were condemned as being totally unfit for smelting purposes. Such are now in great demand, at prices from 7s. to 8s. per ton. When the Thick coal was being worked at its maximum for smelting and manufacturing purposes, the New Mine and Fire Clay were looked upon as inferior rubbish. Now these coals in this neighbourhood are in great request, and makers of iron would be only too glad to give such prices as would 15 years ago have been considered the height of extravagance. These coals are becoming scarce, and may almost be counted acre by acre. But it is on this important subject that we can give some little news of encouragement. In this middle section there are many hundred acres of property, containing coals from a yard in thickness to 4 ft., which are to this day condemned by furnace managers and some iron makers

as being too poor to be used for smelting. The consequence is that many millions of tons of coal are excluded from the calculation of the resources of the various collieries. These very coals, known as Mealey Grey, Yard, and Four-feet are in a few exceptional cases used. With the immense improvements in iron manufacture since the days of our forefathers we do believe that these coals may at least be used in some proportion with others for smelting and manufacturing purposes. If our furnace managers would overcome blind prejudice by intelligent application, we should find that such coals would be brought within the pale of recognition, and would swell the period of the Black Country's prosperity. I have analyses of these coals, which bear favourable comparison with the now used New Mine coal and Fire Clay. It would be a very trivial matter pecuniarily, and a very important matter individually and nationally, if our iron firms in possession of these coals would have accurate analyses made and practical proof carried out, when they would need not be influenced by opinions founded only on prejudice and tradition. I know of two collieries which would have their supply augmented by 15 years if such coals were proved to be of sufficient quality to mix with better. Again, such coals make a heavy proportion of slack, which is of little value, and is often left in the mines, or heaped in a mound. This slack contains pieces of coal in fair proportion, which would not go through a screen with bars 1 in. apart. Supposing coal down to this size can be profitably used in the furnace, what an enhancement in the value of tender coals, which in numerous instances are rendered of no value, solely on the account of making two-thirds slack.

Here, again, then would coals be mixed which are now lying condemned. It is our opinion that such coals from the size of an inch can be used, and will answer well in our blast-furnaces under certain conditions. However, if this article only attracts the attention of our iron kings to the subject it will, doubtless, lead to enquiry and trial. Space will not allow of a completion of this part of our subject.

The remaining section, general remarks, and the geological evidence in favour of coal existing outside present proved limits, must be held over till our next. With Adam Smith, I would say—"The progressive state is in reality the cheerful and the hearty state to all the different orders of society, the stationary is dull, the declining melancholy."—*Willenhall, March 29.* T. PARTON, F.G.S.

ON THE CAUSES OF COLLIERY ACCIDENTS.

SIR,—Referring again to this subject, I would suggest that a well-digested plan of inspection by active Government officers, and adapted to the requirements of each district, is what we must look to in order to prevent a recurrence of distressing accidents. I refer more particularly to those accidents which may be termed preventable under a rigid system of supervision. I do not place the late accident at the Earl of Dudley's colliery, near Brierly Hill, under this class, as the presence of a large accumulation of water was not apprehended in the direction where the 13 men and boys were employed, and no boreholes were kept in advance of the working places to guard against the danger.

Another accident is reported from Monmouthshire, at Nant-y-Glo Iron Works, where nine men have been severely burnt by explosion of fire-damp, some of them fatally. This accident is believed to have occurred by a door being left open, causing an accumulation of inflammable gas, which was probably fired by a candle, or may have been fired by a shot, under similar circumstances to the accidents which occurred so recently at three different collieries in Lancashire, and elsewhere; without more detailed information I will not make further allusion to this accident. The present system of Government inspection having proved unsatisfactory, as far as the saving of human life is concerned, taking a general view of the question in England, Wales, and Scotland, it is suggested that if the number of Inspectors be increased, so as to enable each of them to make periodical inspections of each colliery in his district, and ascertain how far they are conducted on principles of safety—that is, with sufficient currents of air, freedom from explosive gas, the proper use of lights, gunpowder prohibited where safety-lamps are used, and a plain code of rules in force for the guidance of the workmen; in other words, the Inspector should have a general idea of the safety, or otherwise, of each colliery in his district. The benefit to be derived from a national system of inspection of this kind would be so marked, and so plain, as to amply repay the increase in the number of officers, it remains for the British Parliament to decide whether such a system will be carried out, or any other improved one, which by taking cognizance of the entire extraction of coal, so far as practicable, such as is done in foreign countries, and suggesting modern methods and scientific improvements applicable to the working of coal mines, would, without doubt, be of great national advantage. The district of South Wales and Monmouthshire is, probably, large enough for two or three Inspectors, and in Lancashire, where many of the men in charge of collieries are uneducated in their profession, an increase in the number of Government officers would be attended with great advantage. Anyone who has made himself acquainted with the recent enquiries into the late accidents in Lancashire will perceive that there was no organised system of inspection to prevent those explosions and the destruction to human life. The overlookers were ignorant of modern methods of ventilation, and the system of management was defective, both in principle and in discipline. I do not see the utility of waiting till the mischief is done, or after the building is destroyed by fire, to say that such and such measures might have been taken to prevent its occurrence, but to be up and doing, in order to avert those calamities, as far as human foresight and skill can devise.

C. V.

LEAD MINING IN FLINTSHIRE.

SIR,—I observe in last week's *Journal* a letter under the above heading, signed "A Flintshire Miner;" its tone is so dogmatic, its statements so reckless, and its deductions so illogical, that I am tempted to say a few words in reply to the writer. He asks the question, as I take it—Will old and abandoned mines pay for re-opening? and his answer is—No. If lead mining in Flintshire is to pay at all, it must, according to your correspondent, be by making new discoveries "above the water-line." He says—"For let it be remembered that nearly all the celebrated mines of the county have yielded the bulk of their profits from above the water-line, without the intervention of pumping-machinery." This statement is simply and absolutely untrue. Were there no pumping-engines, I ask, on Cat-hole, Pant-y-Mwyn, Llyn-y-Pandu, Hendre, Rhosmor, Milwr, Holwry, Trelogan, and Talargoch? Now, it is a fact that the greatest profits made at the above mines were secured after the mines were sunk below the "water-line," and powerful pumping-engines were employed. It has long been a proverb among Flintshire miners that "where there is no water there is little lead." Indeed, this is almost an axiom among metallic miners everywhere.

Your correspondent says—"Lead mining never will pay so long as operations are confined to old mines." Now, this is absurd, because "operations in old mines" have paid, and are now paying. Take Talargoch, Holywell Level, Minera, and others that might be named, which have been abandoned and re-opened. Your correspondent further says—I would recommend, therefore, that "old mines" should be comparatively eschewed for the future, and that miners of the present day should, like their ancestors, boldly go into fresh tracts of country to discover lodes for themselves, &c.

Now, Sir, what has been the experience of previous pioneers and discoverers of lead mines? So far as I know, in many cases, just this—a great amount of labour and capital has been expended in explorations, sinking shafts, driving levels, &c.; and when the ground has been proved either to be useless or valuable, as the case may be, in eight cases out of ten their capital and patience have alike been exhausted, and others entering upon their successful labours reap the reward due to others' toil. I venture to affirm that there have been more disappointments and loss to original explorers than to those who work abandoned mines. I am free to admit that many companies formed for the "resuscitation of abandoned concerns" have ended in failure, but I assert that in nine cases out of ten the default has not been because the mines have been exhausted; we know to the contrary; but the failure has arisen through insufficient capital, reckless management, and prodigal expenditure. To these causes, and to these alone, are to be attributed the majority of failures in the re-opening of old mines. Your correspondent assigns another

cause for these failures:—"The fact being patent in too many cases that the mine had been exhausted of all profit-giving ore." How is this proved, and where? I defy him to give two cases in point to prove this reckless statement. The fact is, very few old mines, if any, re-opened by new companies, have been sunk deeper than when abandoned, and others have not even been cleared to the bottom of the old workings. Where this has been done, the result has been almost always a success. There may be, and, doubtless, have been, various causes for the suspension of many a rich old mine—e.g., at the time of the stoppage of the Cornish Company's mines, near Mold, lead was selling at from 7l. to 9l. per ton; the mines were expensively worked; more powerful pumping-machinery was required, the purchase of which the profits, at the time, would not cover, and the proprietors declined to find fresh capital. The failure of the Mold Bank about the same time caused the closing of several other valuable mining properties. I say, without fear of successful contradiction, that your correspondent cannot point out half-a-dozen abandoned mines in Flintshire of "historic repute," that will not amply pay for re-opening, as the mines in Flintshire may be said to be, almost without exception, shallow mines, especially when compared with those of Cornwall and Devon. Indeed, there is scarcely a mine in Flintshire more than 100 fathoms deep, whereas in the counties named 250 fathoms is considered comparatively shallow.

I profess to have some knowledge of Flintshire mines, and believe there is no field offering greater inducements to *bona fide* capitalists than some of the abandoned mines of this county. The conditions of success are—1, capital; 2, careful and intelligent management; 3, coupled with a rigid and wise economy. My advice is, improve what has already been discovered, and let those who like it discover for themselves new lodes, &c. LUTHER MARTIN.

MINING, AND THE PRESENT POSITION OF THE METAL MARKET—No. VI.

SIR,—The improvement in the metal and mining share markets is of such a nature as to call for particular notice, and I desire your permission to draw the attention of your readers to the peculiarities of the occasion.

It is always pleasant to those interested in any one department of mining to perceive those engaged in any other mining enterprise prosperous, for the extensive use of any one metal must bring out every other. When iron is in demand (say) for ships it is certain that copper, tin, and lead will also be required. A cargo of rails cannot be sent to Russia or the United States without the certainty being felt that copper and tin for various parts of locomotives, and for innumerable and necessary things connected with stations, are sure to be wanting. The tin miner more than any other looks upon an extensive purchase of other metals with encouragement, because he knows that it more than any other is bought in as an auxiliary. This is one reason why the price of the metal frequently runs up so high from a depressed condition. It is now well known that Russia is bent upon accomplishing her gigantic railway projects; and that loans to the extent of 25,000,000l. to 30,000,000l. sterling will be required. Much of this money will be spent in procuring English rails, tools, locomotives, tin and copper vessels, sconces, lanterns, and cooking apparatus for the workmen, as Russia must come to Western Europe for these metal manufactures, and to England more especially.

The United States of North America has also large projects for new railway communications. The development of agriculture in the Far West renders it necessary. The marvellous mineral discoveries in California, Colorado, Nevada, and along the western slopes of the whole range of the Rocky Mountains and the Cordilleras renders more railway communication a *sine qua non* to the prosperity of that remarkable country. The commerce between the eastern States and the western, between India, China, and the Eastern Archipelago and the Union, and then again between its eastern sea board, and more particularly Europe, compel the country which is becoming the very centre of the world's traffic to cry out for rails, more rails. For this reason the Americans are coming into our market, and will, like the Russians, raise the drooping rates of iron and copper, sustain the firmness of lead, and cause tin to rise with still more buoyancy.

If Straits and Banca are bought in the Dutch market, nevertheless a certain proportion of English tin will be rendered necessary by the fact of that demand. Thus, from whatever point of view we regard it, the price of tin is likely to maintain a high level, and that very much, in all probability, beyond what we have reached. The advance in the value of this metal must affect the interests of Cornwall in a very favourable manner; so that, instead of distress and voluntary exile being the account of things there, we shall hear of the adventurous and hardy race of our South-Western county being in constant employment, and well remunerated for their labour. The advance in tin has been so rapid and extraordinary that, notwithstanding this particular market is liable to a great range of fluctuations, there can be no doubt from the circumstances here related, as well as others, that a descent to the depressed level of 1866-7, and part of 1868, cannot be seen for a long time to come. This is, therefore, a suitable period in which to point out what would permanently benefit mining in Cornwall and Devon. There is one thing in connection with this which I will now suggest; hereafter, with your permission, I will state others.

The working of the mines should be undertaken and conducted on acknowledged scientific principles. Shafts should be sunk and levels opened, and, what hitherto does not seem to have been thought of, these shafts and levels should be left in a perfect state, without removing anything from them when the working, whether by an individual or a company, is given up.

It ought to be a stipulation in every lease that no timber from shafts or levels should be withdrawn on the abandonment by the lessee. The fixed furniture of the mine, so to call it, should not on abandonment by the possessors of the take become the property of the lord; it should be regarded, once attached to the premises, *pro bono publico*. There is nothing so out of the way, as at first sight it might seem to holders. The timber and other articles sold by tenants on quitting bring little advantage; the loss to the community and the mining interest is heavy. When the timber is taken from the shafts and levels they, of course, collapse, and a future tenant has all the trouble and expense over again, enhancing in an unnatural way, and, therefore, injuriously, the cost of metals to the purchaser, and lessening at the same time, the profit of the raisers; in fact, if it were the custom to leave the shafts, levels, sinks, rises, stopes, ends, &c., in the condition they were when used for working, it would be regarded as much a matter of course as even paying the tribute to the lord, and all would in turn feel the benefit and utility of it. If such had been the case heretofore, there can be no doubt in the mind of anyone who knows Cornwall that ore ground now unworked would be opened up, that in these palmy days of prices disused mines, so circumstanced, would quickly be resumed, or find other more spirited occupants.

It is of the utmost importance to the working of mines that the shafts sunk and the levels driven should be made of such a size as will admit of efficient working, so that the miners may not be cramped for want of space, nor suffer in their general health and respiratory organs for want of air, and that the stuff may be removed without the obstructions which often arise, especially in soft country, from incapacious levels.

When new tenants entered upon a mine which had been so regulated they could find fair scope, whereas now the cost of re-opening closed mines, caused by the falling in of the sides from the withdrawal of timber, &c., is seriously deterrent to the enterprise, and is a great impediment to the renewal of work which, if proper care had been taken of the ground, and proper operations had been originally conducted, might yield great advantage to the country.

I trust, Sir, that you will yourself, on some early occasion, when other pressing topics of the day allow, give a leader to these subjects. Indeed, for the *Mining Journal* it is a pressing subject; your columns are always open to statements which point the road to improvements in our mines, and the preparation of our metals. I feel confident, Sir, that you would render a great service, not only to Cornwall and Devon, to Cardiganshire, Flint, Mona, and Ireland, but to those parts of Great Britain where from the nature of the produce taken up other usages predominate than those established in mines of copper, tin, and lead.

In confirmation of some of the remarks which I have made, I will point out to your readers how remarkable the advance which has cha-

characterised the market for tin, and the fluctuations in the value of that metal. Early in 1868 the market value was as low as 92%, since that time, barely 12 months, it has advanced at the rate of 40 per cent.

In confirmation of some of my remarks, I may observe that copper is not likely to rise, and maintain a rise. Tin is only produced in a few countries in the world, whereas copper abounds in both hemispheres, in almost every longitude, latitude, and climate. Accordingly for nearly 50 years, beginning with the century, the standard went gradually, but surely, down. In 1805 it was in Cornwall 162% (fractions omitted); in 1848 it was down to 98%. The standard in Swansea in the year 1819 was 134%, in 1845 it was but 87%. Within a few days Chili bar has been done at 70% 10s., and the announcements are made of heavy freights from that country.

I wish, Sir, that the doctrine was more impressed upon the public mind that countries advance in wealth as their mining enterprises and resources enlarge. This is exemplified in the case of Great Britain, Belgium, and lately by France and North America; whereas countries which have fallen off in mineral resources, or have ceased to make them available, as Spain, Portugal, Poland, Hungary, &c., have declined in social comfort and national importance.

Gresham House, March 31.

THOMAS SPARGO.

THE PRICES OF METALS.

SIR,—The result of the low price of copper for so long a period is the winding-up of several of the largest mines, not only in the island of Ceylon, but also in Chili, as well as the almost suspension of the Santa Barra and other mines in Australia, some extensive mines in Canada, and several copper works in Lake Superior, in the United States. A drop of 50 or 70 per cent. in tin and copper not only put a stop to several gigantic copper mines throughout the world, but, for a time, probably some years to come, the raising of immense quantities of tin also, not only in the islands of Banca and Billiton, but in some of our East India settlements; and had not the oldest and greatest copper mines formerly in Cornwall become extensive tin mines in deeper levels, after yielding immense returns of copper to the depth of some two or more hundred fathoms, the present price of tin would doubtless be all but fabulous, as the consumption of tin is largely on the increase. The quality of copper invariably decreases with the quantity, and had the percentage of this mineral not fallen off, as it doubtless does in depth, in every country where the article is found, many of the greatest mines would still be found to pay; but when it costs 30s. to produce 20s. value in metal, the object of commerce is at an end; thus far in all mining matters. With all the depression in trade during the last few years, lead has maintained not only its price, but an increase. Formerly lead ore found in the limestone formation, averaging from 75 to 80 per cent., sold at from 10% to 12% per ton; the price at present is rather higher. To embark in old and exhausted mines is very like a young man marrying his grandmother. A great cry has been raised of late by persons continually saying I have lost money in mines. It is true, no doubt, to a great extent, but the money lost in re-opening one old mine would discover and prove 20 new mines, on the average. A. BENNETT.

March 29.

THE FRENCH WORKMEN IN CORNWALL.

SIR,—I hope that some one more learned than I am in granite matters may think it worth while to say something in reply to "Clerk of the Works," in the *Builder* of the 20th. I do not suppose there can be any doubt about the quantity or quality of the Cornish granite, or the skill and powers of Cornish quarrymen, or the capital and energy of quarry owners and contractors for granite work. Are there any Unions among Cornish quarrymen? If so, do these Unions compel their members to demand a certain rate of wage, to work only day-work and not piecework, to strike for more wages whenever they think their employer has got a remunerative contract, or is pressed for time, and thus force their employers in tendering for work to put on an extra price, to meet these two probable contingencies? If these Unions do exist, they may be one reason why Cornishmen will see the foreigner doing their work, and at their own doors.

March 31.

A LAYMAN.

THE WINTER'S FREEHOLD AND GREAT NORTH-WEST GOLD MINES, BALLARAT, VICTORIA.

SIR,—In reference to the proposal now brought before the public in London by Mr. William C. Smith, of Ballarat, to mine the ground known here as "Winter's Freehold," and to the doubts held about and objections urged against that enterprise, I desire to state that I have been variously engaged in mining pursuits at Ballarat ever since January, 1856, and that the following is my experience and information in relation to the subject referred to; and, as you have known me formerly, when in the North of England, as one of your correspondents, you will place confidence in my communication.

It is pretty well known, but I may state for the information of those who have not paid particular attention to the subject, that Ballarat is situated about 80 miles from the sea coast, and that it is about 500 feet above the level of the sea, on a part of the Great Dividing Range of mountains, composed of primitive rocks, slates, and slaty sandstone, covered more or less deeply, from a few inches to several hundred feet, with sedimentary tertiary deposits, alternating in the deeper parts with from one to four layers of basaltic blue-stone, from 70 to 140 feet thick.

Mining commenced on the spots where the gold was near the surface at Golden Point, a place now, as may be seen by the map, within the township of Ballarat East. In the early days of gold mining there were no appliances for sinking deep and carrying on extensive mining works; and, in fact, the deeper ground was then little known, and the operations of miners were, therefore, confined to the hills and shallow diggings in the gullies between; the deepest of such workings being generally such as a few men working under the co-operative system would sink in, at the most, a few weeks. But as the part containing what may be called for distinction the proper auriferous alluvial deposits was followed and became worked out it was found that leads or deposits did not cease, but that the beds or water-courses which contained them continued to fall, and run under the table land in the close neighbourhood on which the township of Ballarat West stands, the site of which at the time of the earliest

lustral gold deposits must have been a deep valley, or series of lower ranges and gullies, but which is now the part alluded to above as being covered with layers of sedimentary deposits, alternating with from one to four layers of basaltic rock, in some places over 400 ft. deep. The auriferous drift occurs in the ancient water-courses of this ground, just as in the water-courses of the higher ground already described, and the only difference between them is that one is covered up by after-deposits, whilst the other is exposed.

Winter's Freehold is situated about three miles west of Golden Point, on this table land, and beyond a sub-surface reef dividing the deep basin of the Golden Point lead from the deep basin on which it stands. The deep basin on which it stands is probably a continuation of the deep ground worked up to its north-east corner by the Hand and Band No. 1 shaft, which was once the famous Band of Hope shaft No. 1.

On Sept. 1, 1857, as superintendent of the old Victoria Gold Mining Company, I commenced to bore at a part three-quarters of a mile west of the east corner of Winter's Freehold property, and 338 feet from its northern fence, as marked on sketch, and reached a depth of 147 feet, when the company, being co-operative, and the undertaking appearing too heavy for its means, broke up. Ten years after, June 1867, I was similarly engaged by the Band of Hope Company, into whose hands this ground had fallen; and I was instructed to open out and continue this bore. The result was that, after passing through three layers of basaltic blue-stone, we reached the bottom schistose rock, at a depth of 333 feet. At the last-mentioned time I was also conducting two bores, about 800 feet from the eastern fence of the said Winter's Freehold property, and about three-quarters of a mile south of the north-east corner, and after passing through two layers of basaltic blue-stone reached the bottom schistose rock, No. 9 on sketch, at 220 feet; and No. 10, as on sketch, after passing through three layers of basaltic blue-stone, at 312 feet, covered with 2 feet of wash dirt, containing a little fine gold, clearly showing a falling west of the bottom, and that a western basin existed between the points of my operations. It is a well-known fact to gold miners that where slaty reef occurs, with an easy cleavage, and quartz veins passing

through it, it is found in nearly all cases to be gold-bearing; hence the confidence with which the miner exerts himself when he meets with these indications. They occur in the two deep bores to which I have referred.

Doubtless it would have been a good thing to warn capitalists against a merely speculative scheme, but it was also not a good thing to check legitimate mining enterprise; and the facts I state could have been learned by the correspondent of the "Bankers' Magazine" if he had been at the trouble to examine the statistics of the mining companies I have named.

ROBERT HENDERSON,
Mining Manager, All Saints Mining Company.

* Our correspondent refers to an article which appeared in the "Bankers' Magazine" some few months since, and now almost forgotten. Our contemporary, unwittingly no doubt, had been made a tool of by his colonial correspondent—a contingency London editors are always liable to who admit disparaging statements from distant contributors. It is well to remember, however, the proverb—"It is an ill bird that fouls its own nest." Detraction under all circumstances is of itself suspicious, and should induce caution. But such articles as the one referred to in the "Bankers' Magazine" fortunately disarm themselves. It simply consisted of innuendo, with a promise "to state all particulars in our next;" a promise it is almost needless to state still unfulfilled. The writer, of course, knew that a direct definite charge could and would be immediately and effectually replied to. The letter of the Melbourne correspondent of the *Times*, which appeared about the same time, was also similar in tone and character (probably inspired from the same source), and it is easy to show was written by someone who must have been ignorant of the matters he professed to handle.

WEST VAN MINE.

SIR,—It was exceedingly modest on the part of Capt. Lean, saying that he was not surprised at seeing a reply to his letter relative to the West Van Mine, which is situated about two miles west of the well-known Van Mine, and he positively asserts was formerly called Pencllyn, and, therefore, has nothing to relinquish. I think your correspondent has come to a very wise conclusion, for whilst grasping at the shadow he has lost the substance. On behalf of West Van Company I have taken the precaution to register, and, therefore, cannot allow any other company to partake of that name in the Llanidloes district.

If the Pencllyn Company imagine they can establish a prior claim to the name they will have to go to the Court of Chancery to restrain us from using the name that we have adopted. I think this will settle the question as regards West Van Mine.

Ethelburga House, Bishopsgate-street, London, March 31.

J. P. ENDEAN.

MANUFACTURE OF STEEL IN SOUTH WALES.

Probably there is no question occupying the more serious attention of the manufacturing world, or one of greater moment and importance generally, than the make of steel. We are not now going to enter upon the debateable ground as to whether or no steel will supersede the use of iron; that is a question which has often been discussed, but to which time alone can give the practical solution. There can, however, be no doubt that the manufacture of steel will, sooner or later, prove a new era in our manufacturing history, and once the puzzling problem solved of the manufacture of steel direct from the ores, the trade, now in its infancy, will receive an impetus which probably the most sanguine scarcely now dare to anticipate. Within the past ten or twelve years the manufacture of steel has made important strides in a commercial point of view, but there are still difficulties to be encountered, and questions to be solved, before it can be said that its manufacture is worthy to be ranked amongst our principal staple productions. Every day the demand for steel becomes greater, and it is this demand which has created in the minds of manufacturers and capitalists the desire to manufacture the article in such a manner as will enable them to place it before the world in fair marketable competition. Hitherto the cost of steel has practically kept it out of the market for many of those purposes for which it is admirably and specially adapted. For instance, the laying down of steel rails for any large number of miles would, at its present price, form too costly an item for any but the most wealthy proprietor, and would doubtless be regarded, even by them, as of questionable policy. In many other respects the demand has been limited by the prime cost of its production, consequent upon the enormous expense of the plant necessary for its make; but, without taking a too sanguine view, we believe the day is not far distant when it will be found possible to manufacture steel at such a cost as to place it, all things considered, in fair competition with iron, and that where durability is an important consideration, and where there is great wear and tear, the advantages of steel over iron will be so apparent as to lead to its almost universal adoption. We regard the new works of Messrs. L. L. DILLWYN, M.P., and Co., just erected at Landore, Swansea, as another step in the right direction in the manufacture of steel, and in the practical solution of that puzzling problem to which we have before referred—making steel direct from the ores.

Before, however, referring more particularly to the new works near Swansea, it may be interesting to take a hasty glance at the strides which have recently been taken in the manufacture of steel. It is, of course, well known that before Mr. BESSEMER introduced his great process the manufacture of steel was from Swedish iron being melted in pots. Some 10 or 12 years ago, however, Mr. BESSEMER at the Cheltenham meeting of the British Association, propounded his startling process for making steel direct from the blast-furnace. With a commercial spirit and promptness which reflected much credit upon them, the process was taken up by the Ebbw Vale and Dowlais Companies; but, although those companies successfully combated with all the difficulties which beset the manufacture of an article by an entirely new process, little practical progress was made for several years. Latterly, however, success has crowned their efforts, and immense works are now being carried on, not only at Ebbw Vale and Dowlais, in Wales, but in Lancashire and other parts of England; and it is generally believed that of all successful inventors which England has produced few, if any, have been rewarded for their genius and scientific knowledge more satisfactorily than has Mr. BESSEMER for his discovery. Various improvements have been attempted in the manufacture of steel, but practically steel cannot be produced at prices by which it could be converted into rails by any other than the BESSEMER process; while the enormous cost of the plant necessary for carrying this into operation, as before observed, has hitherto prevented any other than the very large capitalist from dealing in steel rails. Some time ago Messrs. SAMUELSON erected steel furnaces in the North of England upon the SIEMENS-MARTEN principle, and a few weeks ago rails were produced by that firm from steel manufactured under that patent. The SIEMENS patent for the manufacture of steel has been for some time in operation in Leeds; and at the large works of the London and North-Western Company, at Crewe, the quality produced has been tested by experience, and, like the rails produced by the Messrs. SAMUELSON, have given great satisfaction.

The Messrs. DILLWYN and Co. have just erected steel works at Landore, near Swansea, and in their construction the greatest care has been taken to make them worthy the reputation which the firm has already obtained in the manufacturing and commercial world. The smelting operations in connection with the silver works of this firm have been removed from Landore to Llanisamet, in connection with their spelter works, and the silver works at Landore have been converted into steel works. The works are upon SIEMENS' patent, and two large steel melting-furnaces, and a couple of puddling-furnaces, are completed; and a large mill, specially adapted for rolling steel, is being erected. The works have recently been partially started, and we are given to understand that one melting-furnace has during the past week been in operation, and the results have been in every respect satisfactory. Steel produced from various mixtures has been tested, and has answered the fullest expectations of the parties interested. One of the first castings made at the new works was that of a 70 ton cast-iron block, which was required by Mr. W. WILLIAMS, iron founder, St. Helen's Works, Swansea, for a steam-hammer. Three cupolas were specially erected at suitable distances, to enable the metal to run directly into the mould, and charges were run in at regular intervals of three-quarters of an hour, until the block, containing the full weight of 70 tons of solid iron, was finished, and the largest casting ever made in Wales most successfully completed. The dimensions of this enormous block are 11 ft. 6 in. by 9 ft. 6 in. at base, and 7 ft. 6 in. high. The block will take from two to three weeks to cool, it having been cast base uppermost. Trunions forming part of the casting are so placed that it will simply be turned upon its own axis. It is intended to make steel at these new works at Landore by the Siemens' patent direct from the ores, so that there is every probability that that great problem which has for so many years puzzled the scientific world will be solved in a satisfactory

manner; and should this be the case, of which apparently there can now be no manner of doubt, another step has been taken in the manufacture of steel which will probably open up a new era in our manufacturing history, and have most permanent beneficial effect upon many important branches of commerce. We need hardly refer to the importance of this question, so far as affecting the trade of Swansea and the districts in the immediate vicinity of the new works is concerned, for the development of a new trade in the district cannot fail to prove of material advantage. Importations of ores to a considerable extent will be required to carry on the trade of the new works, and the employment of labour in a new direction will be another element of advantage by the introduction of a new manufacture to those of the staple trades of the district. We, therefore, hail with the utmost satisfaction the completion and starting of the new steel works, sincerely hoping that the enterprise and spirit of the proprietors will be rewarded in a most substantial manner.

The copper trade, and consequently the general trade, of the district has been depressed during the past twelve months, but the enormously increased manufacture of spelter by the Messrs. VIVIAN and SONS, the Messrs. DILLWYN and Co., and others in the neighbourhood has been a great assistance to Swansea, compensating in a great measure for the falling off in the copper trade. In connection with this last-mentioned trade (the spelter), one of the most satisfactory features is the fact that the brands of the Swansea zinc smelters already stand as good in the market as any of the continental makers, and such being the case, and with new and important works (such as the Landore Steel Works, to which we have briefly referred) springing up all around us, we have still faith in the future of Swansea, and, notwithstanding the temporary depression in the copper trade, believe the town and port will yet see even greater prosperity, in a manufacturing point of view, than has yet characterised it. With this end in view, we have to look to our large manufacturers and our public-spirited men, and we feel satisfied that we shall not look in vain.

THE GOLD MINES OF VICTORIA, AUSTRALIA—No. I.

Whilst England has been investing her surplus capital in mines in almost every portion of the globe, Victoria hitherto has been indebted to herself alone for the capital and industry which have proved that colony to be doubtless the most productive gold-producing country in the world. Perhaps the most obvious explanation of this apparent anomaly is to be found in the fact that the moneyed classes of England have never yet been asked to assist by their capital in the development of Victorian mines, although another reason, almost equally cogent, for this seeming lack of enterprise may be traced to the circumstance that mining undertakings in the colony have scarcely been of the calibre sufficient to justify their being placed upon the London market, until they have become so productive as no longer to need assistance. It is true isolated instances may be quoted where English capital has been invested in the colony, such as, for example, in the case of the Port Phillip and Colonial Gold Mining Company; but these English adventurers sent out capital for investment without any really definite knowledge of what the nature of their investment would be. The company referred to is, indeed, the only successful venture out of a crowd of similar speculations, for so they must be called, which were started in London during the gold mining furor of 1852. But to those who have had the opportunity of witnessing its growth, the present existence of that company must appear little short of a miracle. It was for years literally a gold mining company without a mine of any description. The very end and aim of every mining regulation enacted during the first years of the gold fields era in Victoria was to strangle capital, and strangle capital they did most effectually for the time. There was no such thing known or allowed as an amalgamation of claims. If the owners of twelve claims wished to amalgamate, and save the sinking of eleven unnecessary shafts, the law stepped in and prevented it, and twelve shafts had to be sunk. The title to the ground held by English companies was, *ab initio*, defective, being derived from the possession of gold fields licenses by the men they employed, who could repudiate at any moment, whenever it paid them better to do so; it was purely one of sufferance, held conditional upon the good faith of its employees. Capital could not hope to be successful under such circumstances, and no wonder, therefore, that capital had to succumb, and but one company started in 1852 is left alive to tell the tale. The Port Phillip Company, for years engaged buying experience, fortunately did not outlive its capital or the patience of its shareholders, but was in a position to await the arrival of broader views, and to reap ultimately the harvest it had sown. The very essence of success was wanting in all these early-formed companies. They were speculations formed in the most speculative mould, and nothing but the veriest good luck and good management combined, in the one instance spoken of, could have sustained life throughout all the countless difficulties which had to be encountered at the beginning.

Just about the time the Port Phillip Company acquired the Clunes property, which has proved its salvation, the necessities of Ballarat mining had begun to enforce in that district a reform which led to broader conceived mining regulations; the basis of that reform has been widening ever since up to the present time, until the area now allowed to be occupied by a single company is ample, and the terms liberal almost beyond measure. The wisdom of so enlightened a policy, looking now upon the rich fruit it has borne, is unquestionable; and undertakings have continued to grow in magnitude, to the greater economy of mining operations, and consequent benefit to investing shareholders. Ballarat, it must be admitted, has given the tone to mining throughout the colony, and there is no district but what has benefited by her experience. Bendigo, with her rich lodes, Maldon, Pleasant Creek, Inglewood, *et hoc genus omne*, will all show corresponding results when they have experienced the benefit of capital in the same degree as the more favoured district of Ballarat. The deep sinking necessary in the latter district rendered digging (the less skilled mode of gold raising) impossible, and miners were compelled to accumulate capital by co-operative labour, and bank it in their mines, success being a work of time. After awhile the mines grew to be dividend-paying; full fortieth to eightieth shares in a number of them were marketable at from 1000% to 3000% each, and the demand for hired labour increased. This is how the capital accumulated which has made Ballarat the wonder it is. The shallow diggings of other districts, however, being capable of successful simultaneous occupation by large armies of individual workers, were rifled of their wealth in comparatively short periods, and by the time the lodes—a later discovery in most instances—were far enough advanced to need capital for their proper development there was not that accumulation of capital to fall back upon. The money easily got in the first flush of the gold fields had been as quickly spent, giving another verification of the adage, "light come light go."

The gold-bearing gutters, or ancient water-courses of Ballarat, for it is of those it is proposed to speak more especially in the present article, are not less remarkable for their extent than for their exceeding productiveness. Within a mile and a half of the claim of the Koh-i-noor Gold Mining Company, and on a tributary of the same lead for which that company was registered, a party of miners were at work for a few weeks, who arrived in the colony by the Great Britain, in 1852, and were enabled to leave by the same vessel on its homeward passage, with a fortune of 2000% each. The actual money capital of the Koh-i-noor Company was only some 10,000%, yet it has paid to its shareholders already no less a sum than 272,460%. It was returning dividends in 1861, and has pursued a successful career up to the present moment. The object of thus mentioning this company is simply to show how little distant the present successful mines are from the scene of some of the earliest efforts on the metropolitan gold field. The majority of the dividend-paying mines of Ballarat even now are situated within three miles of the main street of that township, and within that radius the area of virgin ground is by no means inconsiderable.

Notwithstanding circumstances so favourable for the accumulation of capital, the increase, great as it undoubtedly is, has been far from commensurate with the demand and the opportunities offering for profitable investment. The floating capital at liberty for mining has found almost sufficient outlet in undertakings of lesser magnitude; schemes of larger proportions, for want of the necessary capital, have had to await the progress of a slow development, altogether incommensurate

patible with the extensive character of the undertakings themselves. This is one and the chief reason why the shareholders in two of the largest and most promising undertakings in Ballarat resolved, some few months ago, to place half their interest upon the London market. There is another advantage to be derived by colonial shareholders, scarcely second to the other, which is that half the shares being held by a London proprietor who can afford to hold, and who would not be, like colonial investors, continually compelled to sell, shares will acquire a steady value, more in proportion to the prospects of the mines and the dividends they may pay than otherwise would be the case. Although the advertisement to be found in another column of this day's Journal furnishes information respecting the most salient points of interest in the two companies now offered to the London public, some additional particulars we possess, but for which we are unable to make room, will prove highly interesting to our readers.

[To be continued in next week's Journal.]

AUSTRALASIAN GOLD.—There seems little reason to doubt that the yield of Australasian gold is on the increase, this result being attributable, as we shall show presently, to the discovery of several new fields. In the year 1868 we received Australasian gold to the value of £6,989,594, as compared with £5,801,307, in 1867, £6,839,744, in 1866, £5,051,170, in 1865, £2,656,971, in 1864, £5,995,368, in 1863, £7,704,753, in 1862, £6,331,225, in 1861, £7,719,000, in 1860, and £8,624,566, in 1859. It will be seen that the total receipts of Australasian gold for the 10 years ending 1868 inclusive were altogether £61,715,528, 1868 having made the largest yearly contribution to this aggregate, with the exception of 1859. Although the yield of Australasian gold has been increasing of late, it had been declining for some time previously, the aggregate receipts for the five years ending 1863 inclusive having been £34,374,912, while for the five years ending 1868 inclusive, the corresponding aggregate was only £27,338,616. The import of Australasian gold showed, however, a tendency once more to increase, even towards the close of last year, the imports of December being valued at £33,402, as compared with £16,193, in December, 1867, and £68,062, in December, 1866. This result is due, as we have before observed, to the development of new gold fields, more especially in Queensland and New Zealand. In New South Wales there has been a rush to Spring Creek, and a population of 14,000 has accumulated at the last dates. What was styled in the colony the "Berlin rush" had also produced some large nuggets; one weighing 18½ lbs. had been found in Power's Gully. In Queensland, the Gympie diggings appear to be very rich. The last advices from Brisbane report that in four days 206 tons of quartz were crushed from different reefs in the Gympie field, the result being a return of 1608 ozs. of gold, or an average of 8 ozs. per ton of quartz. At present the capital expended in quartz-crushing machinery in the Gympie field does not exceed £20,000, while the actual mining population is only about 4000. The prospects of the Cape River gold field, in Queensland, are stated to be rich; a new quartz reef has been struck, and some rich specimens have been obtained from it. At the Rockhampton diggings (Queensland) the number of diggers is stated to be increasing. The Thames gold field, in the north island of New Zealand, is making good progress, and during the current year increased accommodation will be afforded to miners by the erection of quartz-crushing machinery, and by the laying out of a system of tramways and railways. One claim in the Thames field—300 feet by 200 feet—was recently valued at £45,000. Some difficulties have been raised by the Maories in connection with the working of the Thames field, but these difficulties were considered at the last dates to be in a fair way of solution.

A MONSTER NUGGET.—The telegraph brings the intelligence that a gold nugget, weighing not less than 200 lbs. troy, has been found in Victoria. It is doubtful whether so large a quantity of the precious metal has ever been found before in one piece. The great nugget of 1838 weighed only 146 lbs. It is noticeable that all these great lumps of gold have been found in Australia. In 1730 a nugget, thought at that time to be immense, was turned up at Peru, but it weighed not more than 60 lbs.

A VALUABLE INVENTION.—Mr. Buttle has constructed a patent cradle specially adapted to gold fields such as Spring Creek, where water is not obtainable. The length of the cradle is 5 ft. It is provided with two inclined hoppers, both moving laterally with rapidity. Dry earth or matrix is supplied at the top of each hopper. Perforations of graduated dimensions are adopted in the hoppers, those at the top being the smallest. A fan, also graduated, revolves with great rapidity between the hoppers, and the dust is blown away, leaving the fine and coarse gold in separate compartments partitioned at each side of the cradle. It is said that, if skilfully used, the operation will be equally as effective as by washing, and much cheaper.

ANGLO-FRENCH INTERNATIONAL RAILWAY BRIDGE.

That a project so entirely without precedent in the engineering world, and so gigantic in conception, as the Channel Railway Bridge of Mr. BOUTET should be met by the publication of statements that there are enormous obstacles in the way of its realisation might reasonably have been anticipated, and it must be admitted that the only mode of meeting these objections is by referring the opponents to the experience derived in connection with existing structures, and in the performance of work most nearly approaching in character that to be performed. It must be remembered that the objections and oppositions met with are exactly similar to those which were encountered in the earlier days of all propositions calculated to bring about great social changes. It was said that to print by steam was impracticable, yet we now print 10,000 sheets an hour with a single machine; illumination with coal gas was looked upon as a pretty experiment for a chemist in his laboratory, but as totally inapplicable on the large scale, yet gas engineering has now become a recognised branch of the engineering profession, many engineers devoting their entire lives to the subject, whilst gas has become really one of the necessities of life. Nor were even railways themselves free from the attacks of opponents, and the great engineer, who was afraid to state publicly that a speed of 8 miles per hour would be exceeded, though he privately whispered that he thought 12 miles per hour possible, lived to travel at the rate of 80 miles per hour, and 50 miles per hour is now regarded as nothing extraordinary for an entire journey. Instances of this kind might be increased to almost any extent, and although, of course, they afford no evidence whatever of the practicability or otherwise of the Channel Railway Bridge, they prove at least how dangerous it is to condemn as worthless a proposition which has not, by actual experience, been shown to be absurd or incapable of realisation.

The objections which have been raised to the bridge may be considered under three heads—those relating to the floating and fixing of the piles, those relating to the action of the waves, the currents, and the winds upon the piles and on the platform of the bridge, and those relating to the inconvenience and danger which the piles might cause to the navigation of the Channel. Now, although the EMPEROR of the French is not a man likely to give his countenance to so great an enterprise as the Channel Railway Bridge without fully considering all these points, and demanding the necessary evidence that the difficulties in such important directions as these were not insurmountable, it is scarcely probable that the unsupported opinion of Mr. BOUTET upon the subject would be accepted by capitalists and the public, who, being themselves unacquainted with the details of the science of engineering, are compelled to draw their conclusions from the opinions of others. To meet this case, the committee of the preliminary company in Paris have obtained a report from a number of naval authorities, in whose opinion the greatest confidence will be placed. The report is signed by Capt. L. DIEFFENBACH, who has official charge of the port of Calais; by Messrs. BEAUGRAND and MONNIERE, harbour-masters of Calais; by Capt. JUTLET and GOURNAY, of the French postal service between Calais and Dover; and by Mr. E. MULARD, an experienced pilot, of Calais. Their arguments appear to be thoroughly sound, and the conclusions they have drawn from them are highly satisfactory.

With regard to the floating and fixing of the piers, they contend that a pier constructed as Mr. BOUTET proposes would, in a clear sea-way, present less volume to the action of the elements than an ordinary ship, whilst the aggregate weight would not exceed that carried by ships of large tonnage, so that if the buoys were in equilibrium the floating would present no difficulty. All that will be necessary is to proportion the buoys to the weight to be carried. For the traction of the pier the use of several tugs would not be objectionable, the proof of this being that at the present time no difficulty is experienced, either from accidental disconnection or otherwise, in towing vessels laden with ballast from Boulogne to Dover, a single tug taking over almost daily ten belandres (sort of sea-going barges) attached one behind another by ordinary cables, and they consider that it requires much more skill and care to navigate such a train than would be necessary with one of the piers. They consider, moreover, that the fixing of the piers would present no difficulty, and that Mr. BOUTET's system of sinking them would have advantage over the usual system of sinking a vessel by overloading it, inasmuch as the descent can be more easily regulated. From the action of the waves upon the piers after they are fixed in position they see nothing to fear. It is true that the sea is very rough in the Straits of Dover, and there are more breakers than in the open ocean; but they say, from the form of the piers, they will present a very limited surface, and their enormous weight and size will entirely annul the effect of the

waves, which, moreover, will be destroyed by the angle-iron of which the piers are to be constructed. The effect of the waves will be much less felt in the centre of the bridge than near the coasts, yet the Waldant Lighthouse must remove all misgivings as to the stability of the most doubtful parts, for, although even lighter relatively than the proposed piers, and situated on the most dangerous part of the French coast, it has long resisted the action of the sea, and remains in good order. They consider that what renders the Channel dangerous is that the wind becomes compressed between the two coasts, but they observe that from the height at which the platform of the bridge will be this compressing action will be much less felt than at the surface of the water; in fact, that the force of the wind will have the opportunity to expend itself upon the surrounding atmosphere. The last objection, as to the impediments to navigation, they consider equally falls to the ground, as the bridge is to consist of spans of 1000 metres, which, as they observe, is equal to ten times the average width of the mouths of harbours, and that there is far greater difficulty in bringing a ship about to get her into harbour than could possibly arise in passing her through the bridge in a heavy sea, and with all sails set. They even go so far as to say that the bridge, with its lights, would be a positive advantage to the navigation, and mention a recent accident arising from a Danish vessel mistaking the Griz Nez light for some light on the English coast, which the electric lights on the piers of the bridge would certainly have prevented. In conclusion, they make several important practical suggestions concerning details of construction, and express a very favourable opinion; but, however valuable such reports may be in removing whatever doubts may still exist as to the practicability of the enterprise, it is probable that the British public will still withhold their substantial support until after the model to scale has been constructed and thoroughly tested—but if the result of that test be favourable, the requisite financial support will not be wanting.

MINING, METALS, AND MINERALS—PATENT MATTERS.

BY MICHAEL HENRY,

Patent Agent and Adviser, Memb. Soc. Arts, Assoc. Soc. Eng.

MR. WILLIAM THOMSON, of Glasgow, has specified a patent relating to tools or apparatus for expanding or cutting tubes and metallic rings, part of which improvements is applicable for withdrawing ferules from the ends of boiler-tubes. This invention relates, firstly, to the expanding of tubes and metallic rings, and it consists of an instrument composed of a body-piece, to which expanding cones are fastened, their ends being held in dove-tailed slots in the face of the body, so that they may be free to move in a radial direction to and from the central part of the expander. Through the body of the expander a spindle passes, one end of which is provided with taper grooves to receive the expanding cones; the other end of the spindle is screwed, so that by tightening the nut thereon against the body the inner tapered surfaces are drawn against the cones, which are, consequently, forced out or against the inner side of the tube or ring to be expanded; and when sufficiently tightened the expander is rotated within the ring or tube, by which action it is expanded equally at all points. In the instrument, as arranged for cutting pieces or lengths off a tube, the conical expanding rollers are substituted by expanding cutters, fixed by a hinge, or other joint, to the body of the instrument; these, being acted upon by the expanding cone, are powerfully forced against the inner part of the tube or ring to be cut, and thereby effects its separation. In place of forming the central part of the expander with grooves to receive the expanding cones a simple central cone may be used without grooves. In the second part of this invention, which consists of a modification of the preceding, and to be used for withdrawing ferules from boiler-tubes, the links for catching the inner end of the ferule are expanded in manner similar to that used in the foregoing; and a bridge-piece passes over the central spindle, so that by tightening the nut against the bridge-piece, which bears against the end of the tube or tube-plate, the force applied withdraws the ferule.

MR. ALEXANDER ROLLASON, of Pembroke-road, Clifton, has obtained a patent for purifying coal gas, and obtaining ammonia from coal gas products. Peat bog, or other similar decomposed vegetable matter, is disintegrated, and mixed with sulphuric acid, and if the decomposed vegetable matter requires to be artificially dried before the acid is added care must be taken not to burn or char it. The product of this part of the invention is designed to be used in an ordinary gas purifying-box, apart from the other purifying-boxes, and the gas should pass through it first after it leaves the scrubber, so that any ammonia which the scrubber has failed to work out of the gas is arrested as it passes through, forming sulphate of ammonia. When the gas passing through it turns red litmus paper blue it is spent, and should be replaced by fresh; the sulphate of ammonia is then washed from the spent product, or used as an artificial manure in the state in which it leaves the purifying-box, or it is subjected to a moderate heat to drive off the tarry matter and smell which clings to it, or neutralised ammoniacal liquor is evaporated upon it, which deprives it of the tarry matter and smell, and adds any desired proportion of ammoniacal salt to it.

OBTAINING MOTIVE POWER.—MR. EDWARD LEDGER, of Edward's-terrace, Commercial-road, Peckham, uses a cylindrical pump of sufficient capacity that when connected with the cylinder of a hydraulic ram by a proper sized connecting-tube on each depression and elevation of the piston of the cylindrical pump there will be a corresponding elevation and depression of the ram in the hydraulic machine—in this consists the hydraulic mechanical power. By the use of two or more of the aforesaid described machines acting on a suitable crank he obtains hydraulic motive power. He uses the machines in connection with animal, wind, water, or steam power, according to the purpose to which he wants to apply them, or the economy by which either of the above powers may be used most advantageously.

SMEETING COPPER.—MR. HENRY CAUSER ESNELL, of St. Helen's, Lancaster, has specified his invention for improvements in smelting copper and other metals, and in furnaces for smelting copper and other metals, and for other purposes, and in obtaining products from the gases and vapours given off during the smelting of copper and other metals. In smelting copper he uses gaseous fuel, obtained by igniting or heating coal in a furnace or closed chamber or retort, or uses inflammable gas, obtained from coal, oil, resin, or other substance from which inflammable gas can be obtained. In using the said gaseous fuel, it is passed through tubes or conduits, which can be heated if desired, so as to heat the gaseous fuel. By means of other tubes or conduits nitrous gas or oxygen and atmospheric air, either hot or cold, can be mixed with the gaseous fuel. The air and gases are introduced into the furnace either at atmospheric pressure, or at a pressure higher than that of the atmosphere, by means of fans or other blowing apparatus. The pipes or conduits are provided with dampers or valves, by means of which the quantity of gases or vapours, and the temperature of the same, may be regulated at pleasure. By the combustion of the gaseous mixture described an intense heat is produced, the combustion being effected in the reverberatory furnace, in which the copper ore to be smelted is contained. The vapours and gases from the smelting furnace descend into a covered space, containing a layer or layers of peroxide of iron, in the state of bog iron ore or bog ochre, or in any other convenient form, together with baryta or other absorbent substance, according to the nature of the gases and vapours given off by the furnace. The said gases and vapours, after having been brought into contact with and yielded up to the peroxide of iron or other substance employed such of their constituents as have an affinity therefor, the said gases and vapours are conducted to towers, in which are trays or bars supporting layers of the materials used for treating the gases and vapours—that is, principally peroxide of iron and baryta. The gases and vapours may be forced through these towers by a fan or blowing machine, and streams or jets of water may be employed in the said towers to facilitate the absorption of the gases and vapours. Any condensable matters which escape absorption in the towers are made to pass through pipes or conduits containing nitrous acid gas and steam, into a chamber or chambers, such as are commonly used for the manufacture of sulphuric acid. These improvements may be applied to any of the processes whereby copper or copper ores or com-

pounds of copper are treated, as well as to the treatment of compounds of other metals, and for collecting or condensing any volatile matter which may be given off in the treatment of the said copper or copper compounds, or compounds of other metals. The improvements may also be applied to kilns or furnaces for burning or glazing earthenware, bricks, tiles, or pipes, and for other like purposes.

Meetings of Mining Companies.

RHENISH CONSOLIDATED MINING COMPANY.

The annual general meeting of shareholders was held at the offices, Austinfrans, on Wednesday, Mr. PHILLIP WRIGHT in the chair. Mr. J. H. MURCHISON (the secretary) read the notice convening the meeting. The report of the directors was as follows:—

The usual full report of the consulting and managing engineer will be laid before you, and it is satisfactory to find the results of the past year more favourable than those of the previous one. In 1867 the returns of ore realised only 2602l. 12s. 7d., against 3292l. 15s. 10d. in 1868, an increase of 690l. 3s. 3d. In 1867 the balance of expenditure over returns was 1243l. 7s. 5d.; in 1868 it has been only 364l. 10s. 2d. In the past year the block account has amounted to 250l. 13s., against 428l. 7s. 8d. in 1867. These improved results arise partly from an increased yield from the lodes, and partly from better prices realised for the ores. The total outlay on the mines (exclusive of block account) has amounted to 18,681l. 6s. 2d., against which there have been ores sold to the value of 11,914l. 3s. 6d. In their last report your directors referred to a discovery at Bilebach, of what was believed to be a new, or "middle" lode; from further development it appears to be a part of the north lode. In the adit it has been driven on for 14 lachters, and has yielded 1 ton of lead ore per lachter; and the 10 lachter level a drivage of 12 lachters has given rather more than 1 ton per lachter. Should the two portions of the lode (now called the north and middle lodes) unite in depth, as is anticipated by Capt. Sweet, the resident agent, the effect may be very important. The length of ore ground, on both parts of the lode, goes down in the bottom of the 10 lachter level is stated at about 35 lachters, valued at 12l. per lachter. At Christiana the 20 lachter level has been driven in the past year about 30 lachters, of which 28 lachters are reported to have yielded an average of 1 ton 7 cwt. per lachter, containing more silver than in the level above. The shaft is down half-way between a 20 and 30 lachter level, where new and improved ore ground may be confidently looked for. The hardness of the ground has been, and continues to be, a serious obstacle to the progress made in developing the mines, but your directors venture to express their opinion that when the lodes are opened upon to a greater extent their productivity will be found to be all the more substantial and permanent on that account. Captain Sweet states, in his report, dated the 16th inst., that he has "no hesitation in saying that the appearance of the mines is very favourable, and much better than it was twelve months ago." During the year your directors have endeavoured, through Mr. Younghouse, to effect the sale of one or more of the mines which it is not deemed expedient for this company to attach, but hitherto they have been unsuccessful, owing, as Mr. Younghouse writes, to the warlike rumours current in Prussia, which have excited considerable uneasiness. Your directors are not without hopes that a change may shortly take place, and that negotiations, which have been suspended, may be renewed. The shareholders may rely on the board giving their best attention to this matter, which they are convinced would be of great advantage. The directors who retire on the present occasion are Messrs. Henry Burkinyoung and Parko Pittar, who, with Mr. Wescomb, the auditor, offer themselves for re-election.

The report of Mr. John Darlington (consulting engineer) stated that the financial result of the underground operations in 1868 is more favourable than that of the previous year. This is attributable on the one hand to an increase of ore from the veins, and on the other to an improved value for the produce. The cost incurred in connection with the Fahrberg trials was 163l. 11s. 11d., against which 81l. 1s. 5d. was received. At Bilebach and Christiana, now the chief seat of operations, the net cost amounted to 3203l. 1s. 7d., and the receipts to 3204l. 16s. 10d., leaving an excess of 1l. 15s. 3d., the sum of 882l. 13s. 8d. was expended on account of block, sundry mines, staff, and other disbursements. Altogether the total expenditure exceeded the returns by the sum of 356l. 2s., or 1025l. 11s. 6d. less than the deficit on the preceding year. Mr. Darlington concludes his report by stating that it is a matter of regret that no profit has been realised, nor that a period can be assigned when the undertaking will become remunerative. Recent results seem to indicate the approach of a favourable change in the hardness of the rock, and an increase of silver in the ore. Whether these features are merely of present importance, or will characterise future operations cannot be determined for some time to come, but any marked alteration would most favourably affect the cost and returns, and place the mine in a position satisfactory to the shareholders.

The report of Capt. Sweet (resident agent) stated that, taking into account the productivity of the mines in the drives made in the 20 lachter level at Christiana, and the new shoot of ore found on the middle lode in the 10 lachter level at Bilebach, he has no hesitation in saying that the appearance of the mines is very favourable, and much better than it was 12 months ago.

MR. WESCOMB (the auditor) stated that from the commencement of the company ore had been sold to the value of 11,914l.; and that exclusive of the value of the property, machinery, &c., the assets exceeded the liabilities by 861l. 19s. 4d.

The CHAIRMAN said the reports were so voluminous that he need add nothing in the way of comment. The facts therein stated showed that the general aspect of affairs was more favourable than at the end of last year, and that if they had not actually turned the corner there were good hopes that they would do so in a short time. The point referred to by Mr. Darlington, and also by Capt. Sweet, as to the advisability of sinking a shaft between Bilebach and Christiana, which it was estimated would cost between 2000l. and 3000l., the directors thought should be deferred at least for the present. He moved that the reports and accounts be received and adopted.—DR. READ seconded the proposition.

MR. DINGWALL thought if the undertaking really possessed the elements of success it would have been realised long before this.

MR. BURKINGHOUSE (a director) did not agree with the last speaker. As one who has a large stake in the concern he was prepared to pay the remainder of the uncalled-up capital due upon his shares, and to further develop the mine, rather than throw up all prospect of recouping himself. It seemed to him that, having entered upon such an enterprise, they were sure to work some time, as it were, in the dark, before any actual discoveries could be expected. It appeared that so far they had gone on gradually improving, and that during the past year sufficient ore had been raised to cover the outlay, as the additional expenditure incurred had been on account of the block—so that the result was much better in every respect than that realised during the previous year. At the same time more ground had been opened out, affording more encouraging prospects for the future; and at the present moment their mines were yielding sufficient produce to pay the costs, and were the ore raised of an average quality, the general outlay would be more than covered. Up to now they had been working, as it were, on the surface, but as the depth was increased their position improved. He considered they were making very good progress.

MR. PAPRIL thought the resources of the mine were not being properly developed, not having called up sufficient capital.—MR. WESCOMB did not agree with that opinion, and simply because the accounts showed the total loss of the year against income from returns of ore was less than 1000l. Had the whole of the call made last March been paid, and which would have been the case had not one of the large shareholders been out of England, there would have been at the bankers a balance of 723l. Supposing during the current year they made no better progress than last year, and that the returns were only equal, the directors would require a call of not more than 5s. per share.

The CHAIRMAN said that, under the advice of their consulting engineer, they had proceeded cautiously, and the more particularly as the indications were such that at any moment they might find they had turned the corner.

A SHAREHOLDER said there could be no doubt the present position of the company was much more substantial and satisfactory than it was two years since, for they could now form a better estimate of the value of the property than they had been able to do hitherto.

MR. DARLINGTON said there could be question that they were now in a much better position than heretofore; and that there were good grounds for believing there would be increased returns. The two great points which had operated against them was the low price of their produce, and the hardness of the ground. The ground, however, now seemed to be getting easier, while the produce of the ore seemed to be improving; therefore, he thought they might hope to realise better results.

The CHAIRMAN said that as the directors did not receive any remuneration for their services, shareholders might rest perfectly satisfied that everything would be done to promote the best interests of the enterprise.

MR. DARLINGTON added that Bilebach and Christiana, with the machinery thereon, were undoubtedly a property of considerable speculative value. He had known properties in Prussia with far less prospects than these sell for 40,000l. The reports were received and adopted unanimously.

Upon the proposition of DR. READ, seconded by MR. DINGWALL, the retiring directors were re-elected.—MR. WESCOMB was re-appointed auditor. Votes of thanks were passed to Mr. Darlington, Mr. Younghouse, and Capt. Sweet for their continued attention to the interests of the undertaking.

Upon the proposition of MR. DINGWALL, seconded by MR. PAPRIL, a vote of thanks was passed to the directors.

The usual compliment to the Chairman terminated the proceedings.

[The Meetings of other companies are published in this day's Supplement.]

[ADVERTISEMENTS.]

From MR. EDWARD COOKE: The market has been steady, without much alteration in prices. The Easter holidays have somewhat interfered with general business. The future looks very cheering for the mining interests, both home and foreign. Tin and lead now command good prices, with every probability of a continuance. Lead mining in North Wales is attracting a good deal of attention. The brilliant success of the VAN MINE has induced a number of gentlemen, seeing that the fortunate holders have seen their shares rapidly rise from 5l. to 6l. up to 22l., 24l., or upwards of 200,000l. upon the entirety of the 12,000 shares into which the mine is now divided, with 4l. 5s. paid. The enormous deposit of lead in the 15 m. level is now being largely augmented by the cutting of the lode in the 30, which is found (as far as seen) to be equally rich. Another lead mine, on the same run or range of hills to the north, called the GREAT ROCK (or in Welsh Cefir Mawr), is the property to which I have alluded in my former articles. Hitherto, like the Van Mine, it has been worked privately, and very important discoveries of lead have been made, and for the more vigorous working of the mine a company has been formed, consisting of 2000 shares, of 5l. each (limited). Having fully examined the mine, I arrive at the opinion that it presents such good prospects as are seldom seen. It would, however, be presumptions of me to offer any practical opinion on the subject. The property has been thoroughly investigated by practical agents of high standing for integrity and experience. The inspections were made at different times, so that the opinions are entirely independent one of the other. Among the agents who have inspected the mine is Captain Rowe, the manager of the celebrated

Price-book on application.

The Tin Valley Mining Company,

IN THE PARISH OF

ST. NEOT, NEAR LISKEARD, IN CORNWALL.

CONDUCTED ON THE COST-BOOK SYSTEM.

It is long since a mining adventure so inviting in all respects as this has been introduced to public notice. For a considerable time past the metal markets generally have suffered under great depression, and tin especially has been down in price. The hope of an improvement has been long deferred, but it has happily been realised at last, the price of tin having gradually advanced during the last six months, from £45 to £75 per ton. This great improvement and the well-founded expectation of still further advances in tin have given life and animation to all the Cornish districts in which that metal is found, and miners and shareholders are alike participating in the results—increased labour and increased profits. Very deep mines, that could not be worked at a profit, are beginning again to make ample returns, and the falling off in the foreign imports tends to give further firmness to the markets.

The Tin Valley Mine, as we have already intimated, presents almost unparalleled attractions. Referring to the subjoined reports of Captains John Nancarrow, James Rowe, and Richard Southey—whose reputations as mining engineers stand in the very highest rank in the county—for the details of the sett, which is of large size, and is most advantageously situated for all the purposes of mining, we would call especial attention to the important facts that nearly all the machinery and plant necessary for working the mine are in good order; that the outlay for completing the arsenic-houses, for which there is plenty of work already on the ground, will be very small; and that the funds in hand will be ample, not only for this purpose, but for continuing the workings now being prosecuted, until the returns become sufficiently profitable to pay good dividends, which there is well-grounded reason to say will be within the course of the present year. The cost of working is comparatively small, not more than from £60 to £70 per month—no steam-power being required, and the immense quantities of halvans at surface, containing tin and arsenic, will at once make profits.

In addition to the tin lode, upon which an adit is being driven, and from which, towards the eastern boundary, a considerable quantity of tin has been raised, there are four other lodes, two of which have been partially worked, and produced large quantities of rich copper ore, tin, and arsenic. They are still rich, but are for the present held in reserve, the operations being confined to the tin lode, from which profitable returns of ore will be sooner realised.

In justification of the decided opinion we have of this adventure we refer to the following condensed reports of three men, upon whom all who know anything of mining undertakings will rely. These show that the completeness of the machinery, and other appliances for working, and the inconsiderable amount of expenses necessary to lay open further and large quantities of rich ore ground, with the profits at once realisable by the working of the lodes now at surface, place the undertaking in an almost incomparably favourable position.

EXTRACTS FROM THE REPORTS.

Camborne, Cornwall.—The sett is about half a mile square, and contains five lodes, which run a little north of east and south of west, and underlie south. The stratum is kyllas. The north lode has been worked to the 80 fm. level, and the main lode to the 110 fm. level. They have both yielded large quantities of rich copper ore, with tin, arsenic, &c., which would, if they had to be worked now, give good profits. The principal object, at the present time, is a large tin lode, 50 fms. south of the main lode. It has been worked in the eastern part of the sett, but only to a depth of 40 fathoms, and to a very limited extent in length. Those who worked it, started the return to have been so high as 14 tons of tin per month, and that, although it was worked by the application of steam-power, and under great disadvantages, it gave good profits. An adit is being driven eastward from this lode from the western part of the sett; it will soon be from 30 to 40 fms. deep, and the lode is likely to be very productive both for tin and arsenic, and to well repay the cost of driving, so that a good mine may be opened without the expense of machinery for pumping. There are thousands of tons of stuff on the mine at surface, containing tin and arsenic, that may be worked to profit, which will help to pay for driving the level, so that the whole of the outlay required will be extremely small. Looking at this mine as a whole, but especially at the lode intended to be worked, its position, and the value of the lodes near it; considering the inexpensive character of the ground, the small

Messrs. BARTLETT and CHAPMAN strongly and conscientiously RECOMMEND AN INVESTMENT in this UNDERTAKING; and they further advise a PURCHASE BEFORE THE SHARES ADVANCE IN PRICE, as they inevitably must do, independently of the effect of a FURTHER ADVANCE in the PRICE OF TIN, which the trade confidently anticipates. The company is on the Cost-Book System, which ensures to the shareholders the immediate control and management of all proceedings. The mine is divided into 6000 shares, of which they can offer a limited number at £1. 2, Bucklersbury, London, E.C.

WATSON BROTHERS' MINING CIRCULAR

WATSON BROTHERS,
MINING AGENTS, STOCK AND SHARE DEALERS, &c.
1, ST. MICHAEL'S ALLEY, CORNHILL, LONDON.

Messrs. WATSON BROTHERS return their most sincere thanks for the great patronage bestowed and confidence reposed in their firm for 25 years, and to assure their friends and clients it will be their earnest endeavour to merit a continuance of both.

Messrs. WATSON BROTHERS have made arrangements for continuing their weekly Circular, which has had a large circulation for many years, to the columns of the *Mining Journal*, their special reports and remarks upon mines and mining, and state of the market, will in future appear in this column. In the year 1848, when Cornish mining was almost unknown to the general public, attention was first called to its advantages, when properly conducted, in the "Compendium of British Mining," commenced in 1837, and published in 1843, by Mr. J. Y. WATSON, F.G.S., author of "Gleanings among Mines and Miners," "Records of Ancient Mining," "Cornish Notes" (first series, 1862), "Cornish Notes" (second series, 1863), "The Progress of Mining," with statistics of the Mining Interest, annually for 21 years, &c. In the Compendium, published in 1848, Mr. WATSON was the first to recommend the system of a "division of small risks in several mines, ensuring success in the aggregate," and Messrs. WATSON BROTHERS have always a selected list on hand. Perhaps at no former period in the annals of mining has there been more peculiar need of honest and experienced advice in regard to mines and share dealing than there is at present; and, from the lengthened experience of Messrs. WATSON BROTHERS, they are emboldened to offer, thus publicly, their best services to all connected with mines or the market, as they have for so many years done privately, through the medium of their Mining Circular.

Messrs. WATSON BROTHERS transact business in the purchase and sale of mining shares, and other securities, payments of calls, receipt and transmission of dividends, obtaining information for clients, and affording advice, to the best of their knowledge and judgment, based on the experience of more than 30 years active connection with the Mining Market.

Messrs. WATSON BROTHERS also inform their clients and the public that they transact business in the public funds, railway, docks, insurance, and every other description of shares dealt in on the Stock Exchange.

Messrs. WATSON BROTHERS are also daily asked their opinion of particular mines, as well as to recommend mines to invest or speculate in, and they give their advice and recommend mines to the best of their judgment and ability, founded on the best practical advice they can obtain from the mining districts, but they will not be held responsible, nor subject to blame, if results do not always equal the expectations they may have held out in a property so fluctuating as mining.

Messrs. WATSON BROTHERS having agents and correspondents in all the mining districts, and an extensive connection among the largest holders of mining property, have the more confidence in tendering their advice on all matters relating to the state and prospects of mines and mining companies, and are able to supply shares in all the best mines at close market prices, free of all charge for commission.

SATURDAY.—Market very quiet, and prices nominal. West Frances, 50 to 52; West Chiliverton, 51½ to 52½; Buller, 14 to 16; Providence, 39 to 41; Prince of Wales, 21s. 6d. to 22s. 6d.; East Grenville, 5½ to 6½; Grenville, 50s. to 52s.; Chontales, 25s. to 30s.; Taguairi, 11s. 6d. to 13s. 6d.; General Brazilian, 13s. to 16s.

MONDAY.—Holiday.

TUESDAY.—Market again quiet. Dealers engaged with settlement. West Seton, 200 to 205; Buller, 14 to 16; Uny, 3½ to 3¾; Marke Valley, 8½ to 9½; Prince of Wales, 21s. to 22s.; Drake, 2½ to 2¾; Drake Walls, 17s. 6d. to 20s.; Mineral Bond, 3½ to 4; West Frances, 51 to 53; Tincroft, 18 to 19; Taguairi, 11s. 6d. to 13s.; General Brazilian, 13s. to 17s.; Chontales, 25s. to 27s. 6d.; Grenville, 50s. to 52s.; East Grenville, 5½ to 6½; West Frances, 51 to 53; Buller, 14 to 16; Chontales, 25s. to 27s. 6d.; Taguairi, 11s. 6d. to 13s.; General Brazilian, 13s. 6d. to 16s. 6d.

WEDNESDAY.—Settling-day, and prices about the same as yesterday. Grenville, 50s. to 52s.; East Grenville, 5½ to 6½; West Frances, 51 to 53; Buller, 14 to 16; Chontales, 25s. to 27s. 6d.; Taguairi, 11s. 6d. to 13s.; General Brazilian, 13s. 6d. to 16s. 6d.

THURSDAY.—Good demand for Grenville. East Grenville, West Basset, West Frances, Chontales, Taguairi, and General Brazilian shares. Grenville, 51s. to 53s.; East Grenville, 6 to 6½; West Basset, 35s. to 37s. 6d.; West Frances, 50 to 52; Chontales, 25s. to 30s.; Taguairi, 11s. 6d. to 13s. 6d.; General Brazilian, 13s. to 17s.; Prince of Wales, 21s. to 23s.; Great Retallack, 2½ to 2¾; New Lovell, 2½ to 2¾.

FRIDAY.—Market active for tin mines, at advanced prices. Great Vor advanced from 18½ to 17; Cook's Kitchen, 19; and Tincroft, 19. Buller, 15 to 17½; Grenville, 52s. to 54s.; East Grenville, 6½ to 6¾; Chontales, 30s.; West Basset, 35½ to 37; West Frances, 51 to 53; Prince of Wales, 21s. to 23s.; Frontino, 19s. to 21s.

HOLLOWAY'S PILLS.—Influenza, Bronchitis, Asthma, and kindred complaints too frequently present themselves as a fierce and pitiless plague at this season of the year; and little less deplorable is the fact that with changing temperatures and damp weather the digestion becomes impaired, the liver disordered, and the mind despondent, unless the cause of the irregularity be expelled from the blood and body by an alternative like these pills. They go directly to the source of the evil, thrust out all impurities from the circulation, reduce disordered organs to their natural state, and correct all defective or contaminated secretions. Such easy means of instituting health, strength, and cheerfulness should be instantly available to check the first symptoms of approaching illness.

outlay required, and the great probability of success, it is very rarely the case that such chances are presented at so small a risk. JOHN NANCARROW.

Camborne, Cornwall.—The mine sett is 400 fms. long and 400 fms. wide, and has five known lodes in it. About fifteen years since two of these lodes were extensively wrought on, and produced large quantities of copper, together with some tin. One of the lodes was wrought on 80 fms. deep, the other was wrought on to the 110 fm. level. The water was pumped by a 60-hp cylinder engine. The mine was managed in a loose way, and, for that reason, did not pay any profit of 50 fms. to the south of the main copper lode they discovered a tin lode. They sank a shaft, 40 fathoms deep, on the lode, and in a short time they raised £15,000 worth of tin from the surface to the 40 fm. level. Tin at that time was not of such value, nor was it thought so much of as now; the price then was £45 per ton; the same quality tin now would bring £75 per ton. Very little exploring work was made on the tin lode; they first followed the tin, took away the best part of the lode, and abandoned it. About 200 fms. west of the old working this same tin lode is to be seen cropping out to surface in the side of a high hill. The parties who have taken the sett have opened on the lode to the side of the hill, about 5 fms. above the river. The lode is regular and well defined; it is 3 ft. wide, and contains some highly promising gossan, large stones of mundle, and some good tin. As far as seen it is a very kindly lode. There are several advantages connected with this mine seldom met with in putting a mine to work; the most important is their having thousands of tons of halvans on the mine that will do to stamp for tin and arsenic. There is a good water-wheel and eight-head stamps, which can be got ready for working in three or four days. A few pounds will put the dressing-floors into good order. The halvans, after it is stamped, contain large quantities of arsenic, worth £4 per ton. The last time the mine worked it was of very little value. A large stream of water is available throughout the year for stamping or pumping, if it should be required. Building-stone is to be had very cheap. Looking at the character of the lode, and the advantages just named connecting themselves with the mine, I consider it to be a speculation of no ordinary character, and one I can strongly recommend to capitalists. It must be borne in mind that there is no deep mine to unwater, and no expensive machinery to erect, but a mine to commence from surface with such good prospects of success as can be seldom met with. JAMES ROWE.

Truro, Cornwall.—Five well-defined lodes run throughout the entire length of the sett, two of which have only been wrought on to a limited extent. On the copper lode little has been done below the 62 fm. level. On one of these lodes, called the Tin Lode, from very limited operations, tin to the value of £15,000 was raised and sold, from only 35 fms. from surface. For 150 fms. in length this lode has never been touched, and can now be seen cropping out on the side of the hill, 200 fms. west from where the former workers had such a very rich tin lode; it is 3 ft. wide, improving as it goes down. No steam-power is required, as there is a splendid stream of water for any machinery that may be required. The lode is required for years, and there is now erected a new water-wheel and eight-head stamps, all complete, with buddles, and other appliances for dressing tin. It is intended to complete the burning-houses at once; when these are finished, to calcine the ores, and have arsenic-chambers made so as to catch the arsenic, now selling at from £3 to £4 per ton, the sale of which will be all clear profit to the company. In addition to tin from the underground workings, there are now several thousands of tons of tin halvans at surface immediately available for the stamps, and immense barrows that will also pay to be turned over, and from which large quantities will be extracted. At the time these were last worked tin was only £45 per ton; the same is now £75. The geological features are all of the best character, being kyllas near granite, intersected by elvan and cross courses. Taking all into consideration, the early results to be obtained from these mines, the extent on the course of the tin lode unworked, and the richness of the ore for tin and arsenic, together with the absence of any necessity for costly works of a speculative or experimental character, I have no hesitation whatever in saying that it is a bona fide undertaking, and, with judicious management, must result in a profitable and lasting mine. RICHARD SOUTHEY.

Mining Correspondence.

BRITISH MINES.

BRONFLOYD.—T. Kemp, March 31: Settings for April: New Shaft, North Lode: Six men to continue cross-cutting the lode south from the main driving of the 73, at 168s. per fathom; this cross-cut is opened 8 ft., and the lode is worked to the 110 fm. level. The 110 fm. level is worked to the 110 fm. level. Six men to open on and stop the lode to the west of cross-cut, in the 62, at 80s. per fathom; lode worth about 2½ tons of ore per cubic fathom. Eight men to stop under the 52; lode worth quite 1½ ton of ore per cubic fathom. Four men to stop in back of the 52, to the west of winze; lode worth 15 cwt. of ore per cubic fathom. Two men to drive the 40 end west, at 55s. per fathom; the lode here is without change. Two men to stop in the back of this level, at 45s. per fathom; lode producing from 10 to 15 cwt. of ore per fathom. Old Shaft, North Lode: Two men to drive the 52 end east from Barton's cross-cut, on the north part of this lode, at 75s. per fathom; lode poor. Old Shaft, South Lode: Two men to drive the 52 end west from old shaft, on the south part of this lode, at 170s. per fathom; the lode here is producing excellent stones of ore, and is looking promising for further improvement.

BWADRAIN CONSOLS.—R. Northey, March 29: The lode in the 35 is from 1 to 2 ft. wide, good saving work. No change in any other part of the mine. We are going on with our dressing for another sampling with all dispatch. **BWLCH CONSOLS.**—R. Northey, March 30: There is no change in any of the ends since I last reported, except in the 30, where we have met with a cross-course from 2 to 3 ft. wide, dipping west full 3 ft. in a fathom, and the ground is harder than usual. The dip and general appearance of this cross-course is different to anything that I have seen in the mine, but this I think is a good omen—that is, judging from the appearances at surface. I am glad to see a further advance in the price of our ore sold yesterday, and, according to present prospects, I hope we may have sold 8 tons 1 cwt. of tin, at 70s. per ton, and we shall sell again next week about 7½ tons.

CAMBORNE VEAN.—N. Clymo, April 1: The engine-shaft is sinking by eight men under the 272, and is down about 5 fathoms. For the last 2 fathoms sinking the ground has been extremely hard, which has greatly delayed our progress; in this hard ground the lode has been poor, but it now appears to be changing, and is coming again into tin. In the 272, west of Grylls's shaft, the lode is producing fair quality tinstuff, and is worth about 14s. per fathom. There are two stops in this level, which are of about the same value. Since the meeting we have sold 8 tons 1 cwt. of tin, at 70s. per ton, and we shall sell again next week about 7½ tons.

CAPE CORNWALL.—R. Pryor, March 30: No change has taken place in this mine worthy of remark during the past week. Saturday being our pay and setting, a full report shall be forwarded.

CARADON CONSOLS.—S. Bennetts, March 30: There is but little change to notice in the 78 west, on the gossan lode; the capels which extend some 2 or 3 ft. north of the lode continue thickly spotted with copper ore and mundle. The north cross-cut is again through the elvan referred to in last report, and the cross-course somewhat disordered, which may be owing to the lode being near at hand. The south shaft is let to sink 12 fms. below the 78, at 10s. per fm.

CASHWELL.—John Peart, March 27: There is no change in the drift going east below Scar Limestone since my last. No. 1 or new stop is improving as we get higher up into the sill. There is a good vein in the Slaty Hazle east and all mixed with ore, and is improving as we get further east. At Dauke's the vein in the rise is looking better this week, not much ore, but a nice vein, composed of Slaty Hazle, similar to what we have at Cashwell, and if it continues to improve as it has done this week we ought to have a good deal of ore.

CASTELL CARN DOCHAN (Gold).—J. Parry, March 29: I am happy to say that the mine improves. There is a good-looking lode in the forebreast of the level, upwards of 3 ft. wide, containing a little lead and pyrites, and spots of gold now and then.

CEN BRWYN.—Jas. Paull, March 27: Having been underground to-day, and carefully examined the different points, I beg to hand you a few remarks thereon. The 92 east is a mundle lode, and is 15 cwt. of lead ore per fm. with every indication for further improvement. The winze sinking below the 90, east of engine-shaft (which is now down about 4½ fms.), is in a lode 5 ft. wide, yielding 1 ton of lead ore per fathom, and when communicated to the 92 will well ventilate that part of the mine, and lay open the ground for stopping, &c. The lode in the 80, going west of engine-shaft, is large, and yields 14 cwt. of lead ore per fathom, and a great quantity of blende. The 56 or deep adit level east is worth 1½ ton of lead ore per fathom; a very fine looking lode, and I consider this discovery to be of great importance. It is a bona fide underground, and at a depth of 72 fms. from surface. The north lode, going west of cross-cut, at the 20, is 2 ft. wide, containing spar, blende, and clay-slate, and letting out water, which is a favourable indication, and the prospects of the mine, on the whole, are very cheering. The machinery, &c., is all in good working order. I presume I need not enter into further particulars, having so recently given a full explanation of the different points throughout the mine at the general meeting. We sampled 16 tons of lead ore on Wednesday last.

CENTRAL MINERS.—W. Davies, April 1: All the drivings are working satisfactorily, but without alteration to notice. The pitch in bottom of the 50 yard level is worth 5 cwt. of lead ore per fathom, and very promising.

CHANTICLEER.—W. Wasley, April 1: Since my last report I have had the 10 yard level cleared for 30 yards east of the shaft, and communicated with some old workings from a shaft about 40 yards further to the east, which has well ventilated the mine. We shall not require a new shaft now for a good while. I have set the shaft to sink below the 110 yard level at 80s. per yard, the men to fill and land the stuff, pay for drawing, &c. We shall sink the shaft on the course of the lode; and, as we have all whole or unwrought ground both east and west of the shaft, and looking at the favourable appearance of the lode in the bottom of the 110 yard level, we may very reasonably expect to meet with good runs of ore.

COLQUHTE AND CALLINGTON.—T. Doldge, April 1: In the Colquhite shaft the lode continues the same in size and character, being full 5 feet wide, and about 5 tons of mundle per fathom, with lead and copper; the ground is not so easy for sinking through, the mundle making it more solid, but this may not last long. They are carting away mundle daily. I have set a pitch on the mundle, to include hauling, dressing, and all charges, at 10s. per ton.

CUDDRA.—A. Cundy, March 31: Since my report of last week no particular change has taken place in any part of the mine. In the 142 our prospects continue to be good. We are still engaged in cutting out the north part of the lode, which we find productive.

CWM DARREN.—R. Clocker, April 1: I have got two men engaged in making preparations for fixing the pulley, so as to enable us to draw the stuff from the 20 with our drawing-machine; the men have commenced driving. In the 20 east we have a very promising lode, and yielding some rich silver-lead ore. In the 20 west the lode at the part which we are carrying is without ore at present. I hope to give you a good account of these ends in a few days. The lode in the adit, 130 fathoms west of the engine-shaft, continues to yield some good stones of lead ore; the lode is a most promising one, and the direction good for making a good course of ore. We are dressing up our silvans, and the machinery is all in good order, and working very satisfactorily.

DEEP LEVEL.—March 29: The lode in the deep level west, on Pant-y-Go vein, is 2 ft. wide, composed of spar, with spots of lead ore, looking promising. In the deep level, south-west on deep level vein, the lode is 16 in. wide, composed of limestone, spar, and spots of lead ore, letting out water freely. The lode in the winze, sinking below the 204 yard level, is 2 ft. wide, composed of spar, blende, and containing spots of lead ore. In the 204 yard level, west of Eytton's shaft, on Pant-y-Go vein, the lode looks promising, being 2 ft. wide, producing fine stones of lead ore. In the 174, west of Pant-y-Go shaft, on Pant-y-Go vein, there is no change. In the 202, west of cross-cut, west of Pant-y-Go shaft, the lode is fully 3 ft. wide, worth 10 cwt. of lead ore per fathom. We have six pitches working by 34 men, producing on an average 14 cwt. of lead ore per fm.

DEVON AND CORNWALL UNITED.—E. James, March 31: The water in the whim-shaft is in for to the 46, which is the bottom level, also the necessary repairs in the pitwork, as referred to in last report, are completed, which is now in good working order; and on Monday last the 46, to drive west of the whim-shaft, was set to three men and three boys, at 7s. per fathom, stented the men. We shall push on this end as fast as possible, in order to get in under the ore ground gone down in the level above. In the 34, west of engine-shaft, the lode is large and kindly; we are carrying about 4 ft. of the south part, which is still producing good saving work for copper ore; we shall cut into the north part, which is now standing, after driving 3 or 4 fathoms further. We are driving by the side of the lode in the 22, west of engine-shaft; the ground is easy for progress, and all that can be desired for the production of copper ore.

DOLWEN.—J. Davies, March 31: We are re-laying the deep adit with sleepers and rails, and I expect to get the 72 completed by the end of the week; I shall then immediately set bargains to extend the level east, and to put out a cross-cut north, about 10 fms. behind the end, to reach the north lode, in which they have made so fine a discovery close to our boundary at Ty-Gwyn.

EAST DARREN.—March 30: In the 116 east the lode is 7 ft. wide, producing some good stones of ore, and looks promising for further improvement. In the 104 east the lode is 1½ yard wide, producing 1½ ton of ore per fathom. In the 92 east the lode is full 2 yards wide, producing 2 tons of ore per fathom for the width of the lode. In the 92, west of boundary, the lode is 1 yard, producing stones of ore at times, but not a sufficient quantity to value. In the winze sinking below the 68 east, near the present end, the lode is the whole width of the winze, producing saving work for dressing, of a low quality. The tribute pitches are without any change to notice, continuing to yield good quantities of ore. We have not anything new in the other bargains since reported on. Our machinery is in good order, and all surface work going on regular, with a full supply of water. We have to-day sampled 75 tons of ore.

EAST GUNNISLAKE AND SOUTH BEDFORD.—J. Bray, March 31: The lode in the 16, driving east of the cross-cut, is 1 ft. wide, composed of spar and peach. The lode in the 16, driving east, on the south lode, is 5 ft. wide, composed of spar and peach, with stones of ore. We have completed our surface work at Impham, and shall put the wheel to work to-morrow morning. P.S. The lode in the Impham adit is 9 ft. wide, producing 6 tons of ore per fathom.

EAST ROSEWARNE.—Charles Glasdon, April 1: In King's shaft, sinking below the 115, the lode is 10 inches wide, producing stones of copper ore, and likely to improve as we get clear of the floor of spar, which was mentioned in my last report. In the 115, west of shaft, we have met with a slide dipping west, but the lode is still productive, both over and under the slide, 15 inches wide, worth 7s. per fathom. In the 115, east of shaft, the lode is 15 inches wide, worth 4s. per fathom. In the 105, west of shaft, the lode is 12 inches wide, yielding stones of ore, and letting out more water than usual. In the rise in the back of the 105, east of shaft, the lode is 10 inches wide, worth 5s. per fathom. In the 95, east of shaft, the lode has been no lode taken down since my last report.

EAST SETON.—J. Vivian and Son, W. Thomas, jun., April 1: The flat-roof shaft will be completed to the 10 fm. level within a fortnight; we shall then be opening on a promising lode, yielding copper ore. We entertain very strong expectations in regard to this part of the mine, and shall lose no time in developing its resources. The other parts of the mine are without change.

EAST SNAEFELL.—W. H. Rowe, March 30: We are making good progress with the sinking below the 35; now down nearly 8 ft., and there is a decided improvement in the lode, which is yielding good stones of lead and jack. There is no change in the 35 south.

EAST WHEAL GRENVILLE.—G. R. Odgers, W. Bennetts, March 27: Setting Report: The 120 to drive east from the engine-shaft, by six men, at 6s. 10s. per fathom; lode 2 feet wide, very kindly in appearance, and worth 1 ton of copper ore to the fathom. The 110, to drive east from the cross-course, by two men, at 6s. per fathom; lode 18 in. wide, with good stones of grey copper ore. The rise above this level (110) by two men, at 4s. 10s. per fathom; lode worth 10s. per fathom. The rise above the 95, by two men, at 4s. 10s. per fathom; lode 18 in. wide, and worth 1 ton of copper ore to the fathom. The 55 east, by four men, at 4s. 10s. per fathom; lode 15 in. wide, and producing a little copper ore; here we may confidently look for an improved lode. The 75 east, by four men, at 4s. 10s. per fm.; lode 18 in. wide, and worth 1½ ton of copper ore to the fm.; here we also look forward for an improved lode. The 65 east, to four men, at 7s. per fathom (short stint); at this level under the slide we have a number of branches that contain good yellow ore, these are all converging; at the junction which will be in 9 feet or 2 fms., we may expect great change, especially judging from the level above. The 55, to drive east, by two men, at 4s. 10s. per fathom (short stint, because a change is shortly expected); lode 20 in. wide, and worth 1½ ton of copper ore to the fathom, at this level we have driven during the last month 6 fms. 2 ft., which has yielded a good pile of copper ore, and which we are sanguine will shortly improve, and be as good as it was at 2 fathoms behind the end. The lode in the pitch above this level is looking very well, and worth fully 25s. per fathom, from which we have an excellent pile of copper ore at surface. The rise above the 45, by two men, at 4s. 10s. per fathom; lode 18 in. wide, and worth 1 ton of copper ore to the fathom. The 55 east, by four men, at 4s. 10s. per fathom; lode 15 in. wide, and producing a little copper ore; here we may confidently look for an improved lode. The 75 east, by four men, at 4s. 10s. per fm.; lode 18 in. wide, and worth 1½ ton of copper ore to the fm.; here we also look forward for an improved lode. The 65 east, to four men, at 7s. per fathom (short stint); at this level under the slide we have a number of branches that contain good yellow ore, these are all converging; at the junction which will be in 9 feet or 2 fms., we may expect great change, especially judging from the level above. The 55, to drive east, by two men, at 4s. 10s. per fathom (short stint, because a change is shortly expected); lode 20 in. wide, and worth 1½ ton of copper ore to the fathom, at this level we have driven during the last month 6 fms. 2 ft., which has yielded a good pile of copper ore, and which we are sanguine will shortly improve, and be as good as it was at 2 fathoms behind the end. The lode in the pitch above this level is looking very well, and worth fully 25s. per fathom, from which we have an excellent pile of copper ore at surface. The rise above the 45, by two men, at 4s. 10s. per fathom; lode 18 in. wide, and worth 1 ton of copper ore to the fathom. The 55 east, by four men, at 4s. 10s. per fathom; lode 15 in. wide, and producing a little copper ore; here we may confidently look for an improved lode. The 75 east, by four men, at 4s. 10s. per fm.; lode 18 in. wide, and worth 1½ ton of copper ore to the fm.; here we also look forward for an improved lode. The 65 east, to four men, at 7s. per fathom (short stint); at this level under the slide we have a number of branches that contain good yellow ore, these are all converging; at the junction which will be in 9 feet or 2 fms., we may expect great change, especially judging from the level above. The 55, to drive east, by two men, at 4s. 10s. per fathom (short stint, because a change is shortly expected); lode 20 in. wide, and worth 1½ ton of copper ore to the fathom, at this level we have driven during the last month 6 fms. 2 ft., which has yielded a good pile of copper ore, and which we are sanguine will shortly improve, and be as good as it was at 2 fathoms behind the end. The lode in the pitch above this level is looking very well, and worth fully 25s. per fathom, from which we have an excellent pile of copper ore at surface. The rise above the 45, by two men, at 4s. 10s. per fathom; lode 18 in. wide, and worth 1 ton of copper ore to the fathom. The 55 east, by four men, at 4s. 10s. per fathom; lode 15 in. wide, and producing a little copper ore; here we may confidently look for an improved lode. The 75 east, by four men, at 4s. 10s. per fm.; lode 18 in. wide, and worth 1½ ton of copper ore to the fm.; here we also look forward for an improved lode. 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The 55 east, by four men, at 4s. 10s. per fathom; lode 15 in. wide, and producing a little copper ore; here we may confidently look for an improved lode. The 75 east, by four men, at 4s. 10s. per fm.; lode 18 in. wide, and worth 1½ ton of copper ore to the fm.; here we also look forward for an improved lode. The 65 east, to four men, at 7s. per fathom (short stint); at this level under the slide we have a number of branches that contain good yellow ore, these are all converging; at the junction which will be in 9 feet or 2 fms., we may expect great change, especially judging from the level above. The 55, to drive east, by two men, at 4s. 10s. per fathom (short stint, because a change is shortly expected); lode 20 in. wide, and worth 1½ ton of copper ore to the fathom, at this level we have driven during the last month 6 fms. 2 ft., which has yielded a good pile of copper ore, and which we are sanguine will shortly improve, and be as good as it was at 2 fathoms behind the end. The lode in the pitch above this level is looking very well, and worth fully 25s. per fathom, from which we have an excellent pile of copper ore at surface. The rise above the 45, by two men, at 4s. 10s. per fathom; lode 18 in. wide, and worth 1 ton of copper ore to the fathom. The 55 east, by four men, at 4s. 10s. per fathom; lode 15 in. wide, and producing a little copper ore; here we may confidently look for an improved lode. The 75 east, by four men, at 4s. 10s. per fm.; lode 18 in. wide, and worth 1½ ton of copper ore to the fm.; here we also look forward for an improved lode. The 65 east, to four men, at 7s. per fathom (short stint); at this level under the slide we have a number of branches that contain good yellow ore, these are all converging; at the junction which will be in 9 feet or 2 fms., we may expect great change, especially judging from the level above. The 55, to drive east, by two men, at 4s. 10s. per fathom (short stint, because a change is shortly expected); lode 20 in. wide, and worth 1½ ton of copper ore to the fathom, at this level we have driven during the last month 6 fms. 2 ft., which has yielded a good pile of copper ore, and which we are sanguine will shortly improve, and be

lode in the 84 west. The slope in the back of the 84 east is worth 77. per fathom. The slope in the 74, west of Sleggan's, are worth 101, 81, 81, and 71. per fathom. The south lode, in the 64, west of cross-cut, is worth 131. per fathom. The slope behind this end is worth 101. per fathom. The slopes in the 64, east of Butler's, are not quite so productive as formerly. Butler's shaft is not yet dry. We intend to urge on the 75 east, and push out the cross-cut in this level, to intersect the south lode, as soon as the water is drained off. The 48, west of King's, on the tin lode, is worth 71. per fathom. The slope in the back of this level is worth 91. per fathom.

GREAT NORTH LAXEY.—R. Rowe, March 27: I have to-day nothing new to report in the bottom of the 110. The 96 end north is still in a fine looking lode, worth 1/2 ton of lead per fathom. The slope in the roof are worth about 1 ton of lead per fathom. The lode in the 84 end north continues to look quite as well as reported at the general meeting, and worth about 1 ton of lead per fathom. The 73, lately resuming driving towards this discovery, has improved, and now yielding good stones of lead. We have dressed and on the floors from 12 to 15 tons of lead.

GREAT RETALLACK.—G. R. Odgers, March 27: The lode in the No. 1 shaft sinking below the 30, has improved to 6 cwt. or 7 cwt. of lead per fathom; and the 40 north, from the No. 2 shaft, has also improved to 5 cwt. of lead per fathom. All the other places are looking precisely the same as I stated in my last report.

G. R. Odgers, J. Harris, April 1: We have no alteration to report on the No. 1 lode. No. 2 lode: The lode in the shaft is producing good stones of lead. In the 40 north we have still a good lode, and we hope in a day or two to report a further improvement, as finer indications no one would wish to see. There is no other change.

GREAT SOUTH CHIVERTON.—J. Nancarrow, March 29: The lode in the 20 east looks very promising; we have now driven 40 fathoms east from the new shaft, and expect to reach the Chiverton lode in driving 10 fathoms further, and to find a good deposit of lead at the junction. The ground has improved in the 40 east, and we are now making good progress in driving towards the lead gone down below the 20, west of the new shaft. The lode in the rise above the 40 east looks better, and is likely to improve. There is no alteration in the 50 east. The 50 west looks very encouraging; the flookan part, referred to last week, is turning to the south, which is likely soon to result in a change for the better. The ground, too, is improving, the water is coming away freely, and we hope soon to be able to sink on the lead below the 40 fm. level.

GREAT SOUTH TOLGUS.—John Daw, March 31: The mine is now forked to the 160, and the sumpmen have resumed the driving of the cross-cut north in this level. In the No. 3 cross-cut we have passed through a lode 2 1/2 ft. in width, producing good work for tin. We shall open out on it, and shall be able to give more particulars in my next report. In the 154, west of No. 2 cross-cut, the lode is worth 251. per fathom. In the 154, west of No. 1 cross-cut, the lode is very hard, and we have put the men to drive on the north part, so that none of the lode has been taken down in the past week; value, 251. per fathom. In the 140 west the lode is 4 feet wide, worth 81. per fathom.

GREAT WESTERN.—Edward Rogers, R. Rogers, March 31: Fisher's Lode: Thomas's engine-shaft is enlarged 30 fm. from surface. In the 20 fm. level, driving east of the Pressure shaft, the lode is 3 ft. wide, worth 101. per fathom. In the rise in the back of this level the lode is worth 151. per fathom. In the 30 end, driving east of Anne's engine-shaft, the lode is 2 ft. wide, worth 31. per fathom, and passing through tribute ground.—Middle Lode: Curtis's flat-rod shaft is sunk 1 fm. 2 ft. below the 20 fm. level; the lode is 3 1/2 ft. wide, worth 41. per fathom. In the 20 fm. level, driving east of this shaft, the lode is 2 feet wide, worth 31. per fathom. In the 7 fm. level, driving east, the lode is 18 in. wide, worth 31. per fathom.—Caunter Lode: In the 20 fm. level, east of Curtis's shaft, the lode is small, but producing some rich stones of tin. In the 17 fm. level, from surface, the lode is 9 in. wide, worth 21. per fathom, and opening profitable ground.—South Lode: In the deep adit, driving west of White's shaft, the lode is 1 ft. wide, producing a little tin. At surface, the engineers are making good progress in taking out the engine. The masons are also getting on very well in building the calcining-house. On Monday last we set the engine-house to build, at 1s. 10 1/2d. per perch; likewise set the carriage of stone, at 1s. per ton.

GWYDYR PARK.—Wm. Smyth, March 30: The lode in the shaft at Gwyn Liffon is without change since last report, but we have intersected a small branch in the hanging side, composed of spar, with a little lead ore; this seems to be dropping down. The Vuchelas deep adit end is also without change; reset to four men, at 51. 15s. per fm., sent the month.

HARWOOD.—W. Vipond, March 24: There is very little change in the mine this week. We continue to get good samples of lead ore from the cross-cut vein. I hope we shall have suitable weather for dressing soon. March 27: Scar Head continues as usual; the new branch is poorer. Mounce's vein is most promising at present. We still get nice pieces of lead ore, and I think we shall have something better soon.

HINGTON DOWN CONSOLS.—James Richards, April 1: In taking down a piece of ground in the 130, near Bailey's shaft, a branch or part of the lode appeared to be gone off north, and it being important to see if this branch holds good, the shaftmen are still busily engaged stopping in this direction. It is therefore, at present the branch is worth 121. per fathom, and we are in great hopes that it will hold down. In the slope in back of the 130 fathom level, east of Bailey's shaft, the lode is now 3 feet wide, worth 2 tons of ore per fathom. In the 100, west of Bailey's shaft, the driving is by the side of the lode, and the ground is somewhat easier for exploring. In the 85, east of Morris's shaft, the driving is still being continued in a southerly direction, and branches containing mundle and a little ore are being met with. The 55, east of Morris's shaft, and west of the eastern cross-cut, is suspended, and is not removed to drive east of the eastern cross-cut, on the north lode; the lode is 18 in. wide, composed of capel, quartz, mundle, and a little ore. The 55, east of Morris's shaft, has been cleared west of the eastern cross-cut, or as far as the main workings, and the men are now engaged securing some ground at this point. In the adit level south some branches of capel and spar having been met with the ground is not at present so favourable for progress. We sampled, on Tuesday last, 83 tons of copper ore.

LILYVER.—J. Davis, April 1: The winze sinking under the 50 fathom level is now down 3 fms. towards the 62; the lode is a most valuable one, and continues to yield quite 2 tons of lead ore per fathom. The cause of the disappointment we have all felt during the past few months not reaching this ore in the deeper level is now explainable, and to do so I must refer you to my report of Jan. 9, wherein I stated:—From a survey made a day or two since, and allowing for the dip, the 62 has yet to be advanced west 9 ft. to reach the ore, but the shoot of ore having formed only in the 50 fm. level it is impossible to judge accurately what the actual dip of the lode may be per fathom. It is now proved by the additional depth of the winze that the lode is standing nearly perpendicular, and thus the body of ore is yet some fathoms in advance of the present end of the 62. In the 62 the men are making tolerable progress; the lode is without alteration, and is worth 10 cwt. of lead ore per fathom. I intend next week to put a new working barrel in the top lift of pumps, so as to get everything ready for active working as soon as the winze is through to the 62, when we shall resume sending ore to market.

LOVELL CONSOLS.—J. Nancarrow, March 27: The bottom below the adit is now drained, and a good lode is laid open. It appears more likely than ever this lode is gone down by the side of the one on which the 12 fm. level is driven, and that it is standing whole to the north. We have set a winze to sink in the west end of the bottom, and shall also continue the rise above the 12, so that this point will be proved in the course of next month, and we expect soon to be breaking tin for the market.

MAULIN.—J. Tregay, March 27: The lode in the slope west of the rise will produce 1 1/2 tons of copper ore per fathom. The rise and south branches are just as last reported. The present copper standard being very low, the copper ore sold for 21. 6d. per ton.

MINERA UNION.—W. T. Harris, April 1: Low's Shaft: The lode in the 60 yard level north is 2 ft. wide, composed of carbonate of lime, and at present unproductive for lead. We have commenced to open on a point gone off in the west side, which is very promising, and yielding stones of lead. I shall be better able to report on this in my next. The ground in the cross-cut going west from this level consists of limestone, and their pitches looking very promising.

NEW CLIFFORD.—J. Michell, March 31: In the 50 cross-cut, north of Holland's engine-shaft, from present appearances we are getting near Weston's lode and the north elvan course; patches of the latter, together with rich faces of yellow copper ore, mundle, and blende have this week been intersected, which I consider very important indications for Weston's lode turning out a great success; in fact, when we take into account the highly mineralised gossan it produced in the back, the character and quality of which have never been known to fall in this locality, it convinces me that we are safe now for a rich mine. We have a large increase of water coming from the end; this is also a most favourable indication, and is generally the forerunner of a good lode; it has increased this week fully 60 gallons per minute. The engine and pitwork are in first-class order.

NEW CROW HILL.—A. Kent, T. Trelease, March 30: We are still pushing on the sinking of the engine-shaft with all possible speed; the ground continues good for sinking, and congenial for the production of lead ore.—Whence Lode: We are still pushing on the 75 cross-cut as far as possible, and we think at present that we are home very near the south part of the lode, and we have just discovered a flookan similar to that which accompanies this part of the lode, but we have not yet cut into it far enough to discover anything definite, but shall be able to say more about it in a few days.

NEW GREAT CONSOLS.—R. Pryor, R. Trathorn, T. Bennetts, March 29: Ellis's Engine-shaft: The lode in the 88, driving west of this, continues much the same as reported on last week. We have commenced to sink a lode below the 74 west of shaft, which will be pushed out as far as possible, and will be in the 86 fm. level for ventilation. No. 1 slope, in the back of the 64, is worth 91. per fathom. No. 2 slope, in back of ditto, is worth 121. per fathom. No. 3 slope is worth 131. per fathom. No. 1 slope, in the back of the 52, is worth 91. per fathom. No. 1 slope, in the back of the 40, is worth 71. per fathom. No. 2 slope, in the back of this level, is worth 141. per fathom. No. 3 slope is worth 81. per fathom. No. 1 slope, in the back of the 30, is worth 91. per fathom; and No. 2 slope, in the back of this level, is worth 101. per fathom. No. 1 slope, in the bottom of the 20, is worth 121. per fathom; No. 2 slope, in the back of ditto, is worth 81. per fathom. No. 1 slope, in the bottom of the 10 fm. level, is worth 81. per fathom.

NEW TRELEIGH.—S. Michell, April 1: There is no change in the new shaft, sinking under the 78, for the week; it continues to yield stones of ore; set on Saturday last to six men, at 181. per fathom. The lode in the 78 east is set the same as for some time past, worth 4 tons of ore per fathom; this was also set to six men, at 181. per fathom. Three slopes in the back of this level, in the 100, west of the 78, are worth 121. per fathom; the slopes averaging 2 1/2 tons of ore per fathom each. The rise in the back of the 78 west, against the winze, below the 70, is worth 2 1/2 tons of ore per fathom; set to four men, at 71. per

fathom; the same to be carried 9 ft. long. The end to drive west by two men, at 61. per fathom; the lode is worth 2 tons of ore per fathom. Two slopes in the back of the 70, west of the cross-course, by two men, each at 31., worth in the aggregate 2 1/2 tons of ore per fathom. A cross cut towards the south part of the 70, west of new shaft, by two men; we calculate 5 ft. more will reach it, and will be accomplished in about a fortnight from this time.

NEW WHEEL TOWAN.—R. Pryor, March 31: The lode at the stopes in the back of the adit is at this time a little disordered by a cross head or slide, and not quite so good as when last reported upon, but the falling off, I think, is only temporary.

NORTH CROFTY.—J. Vivian and Son, W. Thomas, Jun., April 1: In sinking under the 183, west of Petherick's shaft, the lode is worth 2 1/2, per fathom for tin. In the 196 west, 8 fms. behind the aforesaid winze, the lode is worth 151. per fathom for tin and copper ore. In the winze sinking under the 193, just behind the present end, the lode is worth 181. per fathom. The 208 west is being rapidly pushed forward, with the expectation of meeting with improvements corresponding with those already referred to. The eastern levels are progressing very well, but without any change worthy of notice. Our tin pitches are yielding their usual quantities of tin.

NORTH DOWNS.—F. Pryor, J. Williams, March 30: Our driving in the 85 since last reported has been retarded, having had a slight breakage, which is now put right. The rise in the back of the 40 still continues to look very promising, and is producing good stones of ore. The 60, west of cross-cut, on the south lode, has also improved in appearance, and it is our opinion as we reach the ground parallel to our course of ore on the north lode we shall have a decided improvement. The sump-winze is down 8 fathoms, and still looking very well, worth full 151. per fathom. The stopes in the back of the 60 are looking better, worth full 121. per fathom. The pitches are much the same. The products of our ore sampled last week will average 9 per cent.

NORTH POOL.—J. Vivian and Son, F. Clynno, April 1: In the 52 east, and west of Ballarat shaft, the lode is about 3 ft. wide, mineralised throughout with blende, mundle, and copper. In the 30, east of sump, on the middle lode, the lode is 1 ft. wide, and produces 1 ton of good yellow copper ore per fathom. The prospects appear favourable for further improvement in this end.

NORTH RETALLACK.—G. R. Odgers, J. Harris, April 1: In the winze sinking below the 10 there is a nice branch of lead—saving work.

OLD GUNSLAKE.—F. Phillips, March 31: Parker's Shaft: The lode seems to be increasing in size in the bottom of the shaft, and if it continues the same course as at present we shall get our shaft into it again; there is very little change in its appearance, and about 2 1/2 ft. have been sunk. In the 48, or deep adit level cross-cut, we have not cut the lode yet, but I do not think we shall have much further to drive to cut it, as there is an increase of water; the ground is also becoming more mineralised as we proceed, which gives me a very good opinion of the lode when cut. We have driven 6 ft. since last report.

PEDAN-DREA UNITED.—W. Tregay, J. Thomas, March 27: Sump: The lode in the 140 east is worth 101. per fathom. The lode in the 140 west end is worth 31. per fathom. In the 120 east, on Skinner's shaft, the lode is not so good, at present worth 61. per fm. In the 120 west winze the lode is worth 101. per fathom. In the 120 north cross-cut the ground has been tight, but has again somewhat improved, and we hope again to make good progress. The intermediate level, top of the 100 east rise, being driven far enough for a covert to protect the men employed in rising, and the lode not having improved, we have again set the lode, where the lode produces a little tin, not to value. In the 68 east we are again getting away tin stuff, but as yet of coarse quality. Cobblers: The lode is best to stop at the 100 east, on Skinner's shaft, the lode is not so good, at present worth 61. per fm. In the 120 west winze the lode is worth 101. per fathom. 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same as we have before reported to you—the ground is very like that which accompanies the lode at South Condurrow. The 80 west, by two men, at 31. 15s. per fathom; lode 2 ft. wide, and worth 71. per fm. The 66 west, to four men, at 81. per fm.; lode 2 ft. wide, and worth 71. per fm. for tin. North Shaft: The 90 east, by four men, at 41. per fm., and 12s. in 11. for tin; lode worth 81. per fathom. The 80 west, to four men, at 42s. per fm.; lode 2 ft. wide, and worth 81. per fm. The 66 west, to four men, at 42s. per fm., and 9s. in 11. for tin; lode worth 181. per fm. We have to-day set 39 pitches to 55 men, at an average tribute of 11s. 2d. in 11. at 55s. per ton for tin.

WHEAL KITTY (St. Agnes).—W. Polkinghorne, S. Davey, March 30: In the 82, driving west of Hoigate's shaft, the lode is 18 in. wide, and worth for tin 71. per fathom. New Shaft, Pryor's Lode: In this shaft, sinking below the 94, nothing worthy of remark has taken place during the past week. In the 94, driving west of shaft, the lode is 3 ft. wide, and worth for tin 251. per fathom. In the 94, driving east of shaft, the lode is 2 ft. wide, and worth for tin 131. per fathom. In the 82, driving west of shaft, the lode is worth for tin 111. per fm. In the 82, driving east of shaft, the lode is poor. The lode in the winze sinking below the 82, west of shaft, is worth for tin 201. per fathom. In the 65, west of shaft, the lode is much the same as when last reported. Canner Lode: In the 44, driving north of shaft, the lode is worth for tin 101. per fathom. In the 44, driving east of cross-cut, north of Pryor's, the branch is producing good saving work.

WHEAL MARY FLORENCE.—W. Verran, W. Johns, March 31: In the 25, east of Saw's shaft, we are cutting through the lode, which is composed of capel, quartz, and stones of yellow copper ore—a very strong, healthy-looking lode, from which the water is flowing very freely, and we have reason to expect a great improvement here very shortly. In the same level west, the lode is made up principally of peach, capel, and mundle; a much more promising lode than in the level general meeting held on March 16. A stoper's pitch in the back of the 196, south of Smith's shaft, is still looking very well, worth 201. per fathom. The sinking of Trelawny's and Chippendale's shafts, as well as the winzes sinking by the side of the lode, are going on as fast as the nature of the ground will admit. We shall sample to-morrow (Tuesday) 77 tons (computed) of crop silver-lode ore.

WHEAL SPAINON.—Wm. Tregay, March 27: There is no change to report. We are stopping the 30 north cross-cut towards the north lodes as rapidly as possible with the force employed.

GOLD MINING IN MERIONETHSHIRE.—Some experiments are about to be made in the Mawddach Valley by a gentleman who has had long experience in Australia and New Zealand. On account of the large water-power at command, it is understood that Gwynfynydd has been fixed upon as the best ground for commencing operations. The mode of washing the ore (for which a patent was taken out in Sydney) is simple, but very ingenious, and additional details will very shortly be laid before the public. Should the experiments prove successful, it is proposed to establish a company in order to carry out the crushings and washings on a very extensive scale.

THE TIN VALLEY MINE seems to be running a race with some of the best Cornish mines, that have been long in the course, to reach the Dividend List. The adit that is being driven from the western side of the hill has reached the lode which has produced large quantities of tin at a shallow depth, at the east side of the set, and it will, judging from present appearances, soon get into the rich deposit, and make good profits. The cost of working is almost ridiculously small, the drivings of the adit being almost the only work, except the dressing of the halvans at surface, which will at once produce a profit. The mine will, no doubt, be one of the prizes of the year, as there is no probability of a reduction in the price of tin.

FRONTINO AND BOLIVIA.—The advices just to hand from New Granada, under date Feb. 15, show that the satisfactory intelligence received last month has been more than confirmed by increased remunerative results, inasmuch as the produce for January amounts to nearly 600 ozs. of gold, which is a substantial increase upon the returns for December. The profit for January amounts to 450%, as against 254%, the previous month. These returns have been realised in the face of two adverse influences, which, however, only operate at this particular season of the year. December and January have hitherto been the most unsatisfactory months of the whole year, which explains the statement made by Mr. C. S. de Griffé, "that taking into consideration the scarcity of water, the returns for the month cannot but be considered as favourable." Mr. Rouch (the superintendent) adds, "that the result of the month's working of the mines would have been considerably greater were it not for the great scarcity of water just now, and the absence of the men during the Christmas season." Too much praise cannot be accorded to the executive, and especially to Mr. Rouch, for having so successfully carried this enterprise through considerable difficulties into its present encouraging position.

BRAGANZA GOLD MINING COMPANY.—Looking at the great advantages possessed by the Braganza Company's mine (which are not hypothetical, as the mine has already been worked profitably on a comparatively small scale by former proprietors), and looking also at the economy with which gold mines can now be worked, compared with the heavy outlay of the pioneer companies, it is not surprising that this is a popular investment with capitalists, and that the shares are being rapidly taken up. The advantages referred to are so important that we give them, as described in the prospectus, for the information of our readers:—

In addition to the size and richness of the lode, and to its being of the rock formation, which gives regular and equable produce, the estate comprises a very extensive range of auriferous alluvial deposits, and is, moreover, most favourably situated in the following important respects:—

1.—It stands high and open, and is remarkably healthy, while the lay of the land and position of the mountain are peculiarly adapted for easy and inexpensive mining, and for bringing the gold ore by tram-cars from the mine to the crushing-mill.

2.—There will be no underground works required for excavating the ores for many years to come, as "it is all an open working or cutting." No pumping machinery or wooden supports will, therefore, be needed, and no expense will have to be incurred for fuel, oil, candles, &c., while very much larger quantities of ore can be extracted within a given time, and at a much smaller cost, from an open cutting or quarry, than from underground mining.

3.—There is an abundant supply of water, which can be increased to any required amount in a short time, and for a small outlay; and there is sufficient fall to the stamps to erect a number of water-wheels, and water enough to work them.

4.—The supplies of both labour and provisions are abundant and cheap, the mine being close to the fertile valley of Itabira do Campo, and in near proximity to the villages of Parapeba, Itabira, and Goncalo Sabauro. All the provisions which go to the celebrated Morro Velho Mine of the St. John del Rey Company pass the Morro Tabac Mine, along the Cata Branca road.

These four important requisites being undoubtedly possessed in an eminent degree by the Braganza Company's Mine the development of the property will be carried on under the most favourable circumstances. The quality of the gold yielded is remarkably pure, being from 22½ to 23½ carats, which is superior to that of the Cata Branca and Morro Velho Mines. Six bags of the ore, taken from different parts of the lode, have been assayed by Messrs. Johnson, Matthey, and Co., yielding an average of rather more than 22 ozs. of gold to each ton of ore, which would be equal to more than 701. per ton.

These assays fully confirm Capt. Williams's statement of the great richness in gold of the Braganza Company's ore. "In all my travels through South America and Australia I never saw so large blocks of quartz from any lode so rich in gold as those from this mine." Two levels have already been driven by the former proprietors, each about 25 fathoms long, as shown in the section to be seen at the office. They will now be completed, and stamps and reducing apparatus will be erected forthwith. In addition to the large and rich quartz lode, whence the above six bags of ore were taken, the estate also comprises a very extensive range of alluvial deposits, estimated by Capt. Williams (see report) as "enough to last for the next century," and which, judging from the specimens at surface, and from his experience of the Cata Branca washings, he expects will be very productive; and as alluvial deposits require only to be dug up and washed, the gold can be extracted from them quickly, and at a very trifling cost. It is well known to Australian and Californian gold miners that where a sufficient supply of water can be had even 1 dwt. of gold per ton will yield a profit. The property thus being so favourably circumstanced for easy and quick development, and much preliminary work having been already done, returns of gold may be realised almost immediately.

In illustration of the comparatively small cost at which gold mining can now be carried on, as compared with the expenditure of the earlier companies, the following figures are given, and show a progressive improvement most encouraging to shareholders in well chosen and well managed modern enterprises of this kind.

	Paid-up capital.	Cost.	Profit realised.
Imperial Brazilian	£200,000	£270,000	£65,910 in 30 years.
St. John del Rey	128,400	56,000	1,157,517 in 38 years.
Don Pedro North del Rey	53,313	30,000	121,751 in less than 3 years.

It will be seen from the above that the first cost of the earlier

mines, and of developing them, and the annual percentage of profit, are in an inverse ratio with the cost and profit of the mine most recently put to work—that of the Don Pedro Company, which has repaid its capital more than twice over within a little over two years. It should also be noted that the properties worked by the above three companies are pronounced by the best authorities to have ample riches in them yet. The Imperial Brazilian Company's mine, Gongo Soco, has been recently purchased for the Rossa Grande Company, under the advice of Capt. Thos. Treloar, who gives it as his opinion that "Gongo Soco is not exhausted yet;" and there can be no doubt but that the St. John del Rey Company's mine, Morro Velho, will be quite as productive (and, probably, more so) than ever, as soon as the two new vertical shafts are finished; while of the Don Pedro Company's mine, Capt. Treloar says "it is yet only in its infancy." Looking at these facts, it is not to be wondered at that well chosen and well managed Brazilian gold mines are popular investments.

The Mining Market; Prices of Metals, Ores, &c.

METAL MARKET—LONDON, APRIL 2, 1869.

COPPER.				IRON.			
Best selected, p. ton	78	0	0	Bars Welsh, in London	6	10	0-6 15 0
Tough cake and tile	76	0	0	Do, to arrive	6 <th>10</th> <th>0-6 12 0</th>	10	0-6 12 0
Sheeting & sheets	79	0	0	Nail rods	7	2	6-7 5 0
Boils	81	0	0	Do, in London	7	12	6-8 10 0
Bottoms	82	0	0	Bars ditto	7	10	0-9 10 0
Old (Exchange)	85	0	0	Hoops ditto	8	0	0-9 15 0
Burra ditto	81	0	0	Sheets, single	9	0	0-11 0 0
Wire	10	0	0	Pig No. 1, in Wales	3	15	0-4 5 0
Wire	10	0	0	Refined metal, ditto	4	0	0-5 0 0
Tubes	0	10	11½-1 0	Bars, common ditto	6	0	0-5 0 0
BRASS.				Do, mch. Tynor Tees	6	10	0-5 0 0
Sheets	9d.	8d.	8d.	Do, railway, in Wales	6	0	0-5 0 0
Wire	8½d.	8½d.	8½d.	Do, Swed. in London	10	0	0-10 5 0
Tubes	10½d.	10½d.	10½d.	To arrive	10	5	0-10 5 0
SPELTER.				Fig. No. 1, in Clyde	2	13	6-3 0 6
Yellow Metal Sheath. p. lb.	7d.	7d.	7d.	Do, f.o.b. Tyne or Tees	2	6	0-2 5 0
Sheets	6½d.	6½d.	6½d.	Do, Nos. 3, 4, 5, 6, 7, 8, 9, 10	2	6	0-2 5 0
ZINC.				Railway chairs	5	10	0-5 15 0
Foreign on the spot	25	0	0	Do, spikes	11	0	0-12 0 0
to arrive	21	0	0	Indian Charcoal Pigs	7	0	0-7 10 0
TIN.				In London, p. ton	7	0	0-7 10 0
English blocks	127	0	0	STEEL.			
Do, bars (in barrels)	128	0	0	Swed., in kegs (rolled)	15	5	0-15 10 0
Do, refined	133	0	0	Do, (hammered)	15	5	0-15 10 0
Banca	142	0	0	Ditto, in faggots	16	0	0-16 0 0
Straits	138	0	0	English, spring	17	0	0-23 0 0
TIN-PLATES.*				QUICKSILVER (p. bottle)	6	17	0-0 0 0
IC Charcoal, 1st qua.	1	8	0-1 10 0	LEAD.			
IX Ditto, 1st quality	14	0	1 16 0	English Pig, com.	19	10	0-0 0 0
IX Ditto, 2d qua.	1	7	0-1 8 0	Ditto, L.B.	19	15	0-0 0 0
IX Ditto, 2d quality	1	13	0-1 14 0	Ditto, W.B.	20	15	0-0 0 0
IX Coke	1	4	6-1 5 0	Ditto, sheet	20	5	0-0 0 0
IX Ditto	1	10	0-1 11 0	Ditto, red lead	21	0	0-0 0 0
Canada plates, p. ton	13	10	0-0 0 0	Ditto, white	27	0	0-30 0 0
Ditto, at works	12	10	0-0 0 0	Ditto, patent shot	22	10	0-23 0 0
				Spanish	18	17	6-19 0 0

* At the works, 1s. to 1s. 6d. per box less.

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REMARKS.—The Metal Market during the former part of the week has been affected, as is usually the case, by the Easter holidays, which caused business to become slack for the time; but now that they have passed, it seems likely to resume its previous activity; indeed, from all appearances, there is every probability that it will become more animated, and that we shall soon enter upon a course of much prosperity in the metal trade. There now seems every disposition on the part of buyers to enter freely into operations, and we look for great extension in transactions in the trade generally. Prices in some instances have advanced very considerably, and the tendency in one particular metal is still upward; indeed, prices have not reached the point they are now at for a very long period; and there is no question that parties who have entered into speculative transactions in this particular metal will be sure to come out with large profits; and this rapid advance in prices is sure to lead to more operations of this kind being entered into; and we may, consequently, look for very considerable activity in this department of the trade. The directors of the Bank of England, at their weekly meeting, on Thursday, advanced the rate of discount from 3 per cent., at which it had stood since the beginning of December, to 4 per cent. This movement was hardly expected, although an advance had been looked for a week or two ago; however, this advance will have no prejudicial effect upon legitimate business, and, perhaps, may not even check speculative operations, as 4 per cent. is not a high rate of interest. The reason, probably, of the present rise is to check any large withdrawals of gold from the country, which might have taken place in consequence of the exchange in America being favourable for such purposes, and also in anticipation of any foreign loans coming out; and, no doubt, it will be found that this step is justified by the result.

COPPER.—The advices received from Chili during the week are considered more favourable than the previous telegraphic information, so far as that the actual shipments were expected to be below the amount of the charters. Holders are, consequently, less willing to sell at previous terms. The demand is now somewhat more active, and business has been done in Chili bars at 711. cash on the spot, and 721. for arrival. Burra is quoted at 821., and Wallaroo at 811. 10s. cash.

IRON.—In Staffordshire there is an improvement in the demand. Buyers are making more enquiries, and the works are somewhat better off for orders, especially for hoops and sheets. In Welsh business keeps without any material change, but it is expected that new engagements will soon be entered into. A number of vessels are now taking in cargoes for rails for the United States and Russia, and by the time they have all cleared the stocks will have almost disappeared. Quotations for railway iron are well maintained, and strong hopes are entertained that as the year advances prices will gradually move upwards. The continental enquiry for bars has led to slightly increased firmness in the market. For Swedish iron the demand is not quite so active. In Scotch pig-iron the market was dull during the former part of the week, but has since rather improved, a better demand having sprung up, the last price received from Glasgow being 52s. 9d. cash.

LEAD.—Business still continues active, and sellers are very firm in their prices; good soft English is now quoted 191. 10s.; L.B. 191. 15s.; and W.B. 201. 15s.

TIN.—The market for foreign has been in a most animated condition during the week. On Thursday the Dutch Trading Company's sale of Banca took place at Amsterdam, when the whole quantity of 49,500 slabs was sold at 82½ fls., equal to 1421. to 1431. here. A reduction of 30 per cent. had to be made on the purchases, the orders exceeding the quantity for sale. Before the sale Straits had been sold at 1321. cash, but subsequently the price rapidly rose, and a considerable business has been done up to 1381. cash, with every prospect of further advances, the market being in an excited condition. In Holland the stock of Banca in warrants on March 31 was 60,372 slabs, against 174,458 slabs at the same time last year; and the arrivals towards the next 70,507 slabs, against 11,826 slabs at the same time last year.

SPELTER continues rather inactive, the quotation for parcels on the spot being 201. 15s. to 211. The stock in London on March 31 was 1337 tons, being an increase of 225 tons during the month.

TIN-PLATES.—Makers are well supplied with orders at the advanced prices, and there is not much doubt that the enhanced value of tin will cause a further advance in tin-plates ere long.

STEEL in rather better demand.

QUICKSILVER.—Not much doing.

THE IRON TRADE.—(Griffiths' Weekly Report).—The market is firm for most kinds of iron here. The hardening tendency in the price of railway bars continues unabated. The actual business reported, however, this week is below the usual average, the quarter-day being so near at hand satisfactory accounts for the general want of activity in large parcels of iron. There are numerous enquiries on the market for rods, hoops, and small rounds, these being the sorts which continue to command the attention of buyers, and in which a large business will, no doubt, be done at Birmingham on Thursday next. The stocks in merchants' warehouses here were augmented considerably in December and January last; in other parts of England merchants' stocks are low. The feeling with all classes of buyers is hopeful, and it is expected that good orders will be given out by London buyers for most kinds of iron at quarter-day, and, if the Americans and Russians operate to any considerable extent for rails, the

result will inevitably be in favour of better prices in May or June. The great rail houses in Wales and elsewhere evidently anticipate this favourable state of things, or they would not have refused contracts for good specifications at present rates. The action of the board of directors in Threadneedle-street, on Thursday, took all parties by surprise, but we see no reason why this should in any way interfere with the iron trade; 4 per cent. is by no means a high rate of interest for money, and as the large purchases of American Securities bought here of late demand commensurate amounts to pay for them in Wall-street, gold has been forwarded in satisfaction, yielding a very large profit to the shippers, owing to the favourable state of the Exchanges there for gold payments. This is the cause of the advance of the rate of interest here, and the only effect it will have here will be to check the speculation which has lately been going on in 5s., 20s., and other American securities.

THE COPPER TRADE.—Messrs. Pitcairn-Campbell and Co. (Liverpool).—The tone of the market does not improve, and whilst English smelters are complaining of inactivity, the demand for foreign on the spot is dull at quotations. Comparatively high prices are paid for Chili bars for distant arrival. Quotations are 701. 10s. to 711. for Chili bars, 751. to 761. for Ingots, 14s. 3d. for Chili ore and regulus, 15s. for Barilla. Business transacted during the fortnight comprises, on the spot here, 455 tons bars, at 701. to 701. 15s. To arrive here, 450 tons bars, at 711. to 721. 10s.; to arrive at Swansea, 180 tons ore, at 14s. 3d., and 500 tons regulus, at 14s. 15d. Arrivals here during the fortnight, from West Coast, S.A.:—Warwickshire, from Tome, 455 tons regulus; Mexican, from Colon, 10 tons bars, 138 tons Barilla; Santa Rosa, from Valparaiso, 42 tons bars. At Swansea, Minero, from Coquimbo, 700 tons regulus.

Stocks of copper (Chilian and Bolivian) in first and second hands, likely to be available, are—

Ores.	Regulus.	Bars.	Ingots.	Barilla.
Liverpool	1125	650	5300	780
Swansea	2334	4030	1259	68
Total	3459	4680	6559	848

Representing about 10,450 tons fine copper, against 7800 tons March 31, 1868; 8800 tons March 31, 1867, 10,700 tons March 31, 1866.

Messrs. Vivian, Younger, and Bond.—Transactions have been limited scale, though the market has become harder, and the few operations which have been reported have all been at full quotations. About 500 tons of Chili bars changed hands at 711. cash, and 721. to arrive; these rates are now rather under the market, there being buyers yesterday for considerable quantities at such limits. Fine foreign copper is scarce, and orders at current rates are difficult of execution. In fact, holders generally are firm, and quite disposed to wait and take their chance later on. Telegrams have been received from Chile this day advising charters of copper produce for the fortnight ending March 2, amounting to 1350 tons fine iron ores and regulus, and 1300 tons in bars and ingots; as, however, the advices received by letter on the 20th ult. stated that some of the charters of the ships previously advised found greater difficulty in fulfilling their engagements, and in some cases were even trying to cancel their charters, or to exchange for other produce, it is pretty clear that the quantity now advised is owing more to the low freight (which for bars is only 11. 15s.), and the good news received from England, than from any excess of production over previous years. The advices which will have been received in Chile later than the date of this last telegram will be by no means encouraging, and we may now confidently look for small quantities for some considerable time to come. With reference to this question of charters, however, we may mention that really this point is not so sort of guide as to the production of copper in Chile, and should not influence the price at all. For instance, Chile exported during the last five years the following in fine copper:—1864, 47,500 tons; 1865, 48,372 tons; 1866, 44,820 tons; 1867, 44,454 tons; and 1868, 43,750 tons. Yet last year, during the three months of May, June, and July, the total quantity amounted to 17,731 tons, or at the rate of 70,224 tons per annum. The advices received by telegram to-day will make the total for the three months of December, January, and February 16,500 tons, or equal to 66,000 tons per annum, while we are assured on all sides that the production in Chile has not increased.

Messrs. James and Shakspeare.—Ore and regulus are steady, with buyers of the former, if of good produce, at 14s. 3d., and no sellers except at higher rates; the latter sort is obtainable at said price, but smelters do not seem inclined to give over 14s. per unit. In Chili bars about 500 tons sold since Thursday at 711. for cash, 721. to 721. 10s. for "arrival" parcels, the business being pretty equally divided between the two modes of purchase; it would seem, however, from the tone of the market, that holders are inclined to wait for better prices, and though the stocks of this description supposed to be available (7) are estimated at about 6500 tons, yet scarcely one-tenth of that quantity could be purchased without creating a rise of fully 3 per cent. on present value. Ingots remain without transactions, the offers for this kind being from 10s. to 20s. per ton below asking prices. On March 29 the Chili mail arrived, giving full particulars of the charters for the first half of February, and it appears that the total is about 300 tons less of pure copper than advised by telegram on the 17th, the 455 tons being:—For England about 300 tons in bars, 1070 in ores and regulus, 675 tons bars for Harve, and 45 tons for Hamburg, the total of all being about 2100 tons. Some advices also stated that out of the late heavy charters a portion would have to be cancelled, the charters being unable to provide the stuff to meet their engagements. In Australian some small quantities of Burra are reported at 811. 10s. and 821., and one trifling lot of Wallaroo at the last quotation, the sales in all instances being from second hands; it would, however, be impossible to execute any important orders except at a good advance on those rates. Rather more enquiry is experienced for English, and orders for manufactured for Russia have lately been given out.

Business in the MINING SHARE MARKET has been interrupted since our last by the Easter holidays, and by the settlement of the fortnightly account, which commenced on Saturday, the 27th, and ended on Wednesday. Notwithstanding this, however, there has been a good business done in East Grenville, Wheal Grenville, West Basset, West Frances, Great Retallack, West Chiverton, Mineral Bottom, Great Vor, Prince of Wales, Providence Mines, West Seton, Wheal Buller, Wheal Uny, Great North Laxey, Cook's Kitchen, Great South Tolgus, Tincroft, and others.

On Friday, after the Banca tin sale became known, there was a good demand for Cook's Kitchen, Great Vor, Tincroft, and other tin mines at advanced prices.

The standard for copper ores rose 1½ per ton on Thursday; and the price of the Banca tin sold was equal to 1441. per ton, delivered in London.

Great Laxey, 19 to 19½, ex div.; the accounts preparatory to the half-yearly meeting, to be held at the London Tavern, on the 14th, have just been published, and show a general balance of assets over liabilities of 19,1761. 16s. 4d. Of this the new capital account shows 11,0511. 19s. 6d. The returns for six months were—Lead ore, 27,0771. 10s.; blende, 59481. 4s. 1d.; copper, 9371. 10s.; total, 33,9631. 4s. 1d. The costs, including royalty paid to the Crown, 20811. 17s. 3d., and income tax 7501., amounted to 21,9001. 12s. 6d. Two dividends paid 15,0001. Balance, crediting stock of ore on hand (98861. 19s. 3d.), 81241. 16s. 10d. Cook's Kitchen shares advanced to 161. 7d. Drake Walls, 18s. to 20s. Don Pedro del Rey, 3½ to 3¾ prem., ex div.; the estimated produce for February is telegraphed as 18,000 ozs. of gold. East Caradon, 8 to 8½; East Carn Brea, 5s. to 7s. 6d.; East Lovell, 9 to 9½; Frank Mills, 3½ to 3¾.

East Grenville shares have been firm, and largely dealt in at 6½ to 6¾; the 120 is worth 1 ton of ore per fathom; the 95 fm. level rise, 1½ ton; the 75, 1½ ton. The 55 is improving to 2 tons per fathom. In a pitch in the back of the 55 there is a splendid lode, worth 251. to 301. per fm. The next sampling will be 250 tons of good ore, and this would have been 350 tons but for the run of ground in the 45. Wheal Grenville shares have been firmer, and advanced to 51s., 53s. The report shows indications of being near upon the lode in the 90 cross-cut. Great Retallack shares have been in demand, and advanced to 2½, 2½. A telegram was received on Tuesday that the 40 north had improved to 1 ton of lead ore per fathom. Great Wheal Vor shares advanced from 15 to 17½; Herodsfoot, 44 to 46; Marke Valley, 8½ to 9½; Mineral Bottom, 3½ to 3¾; New Lovell, 2½ to 2¾; North Croft, 1 to 1½; West Basset shares have been extensively dealt in at 35s. to 40s. We understand the mine has been inspected by three different agents since our last, and these agree that with 48 heads of stamps the mine can make a profit of 5001. per month from tin. Great South Tolgus, 20s. to 22s.; General Brazilian, 5s. to 6s. prem.; North Trekerby, 17s. to 18s.; Prince of Wales, 21s. to 23s.; West Prince of Wales, 3s. 6d. to 4s. 6d.; Providence Mines, 40 to 41; South Condurrow, 24s. to 26s. West Chiverton, 51 to 52; the 120, west of Hawkes's, on south lode, is worth 301. per fathom. The north, or William's, part when last taken down was worth 401. per fathom. No. 1 winze, below the 110 west, is worth 401. per fathom. The 100, west of Batters's, on south lode, is worth 251. per fathom. The 100, west of Batters's, on south lode, is worth 301. per fathom. No. 1 winze, west of Burgess's, on the south lode, is worth 501. per fathom. No. 1 winze, sinking below the 100, east of Batters's cross-cut, is worth 401. per fm. The winze sinking below the 90, west of Batters's, is worth 251. per fathom. The 100 fm. level end, west of Batters's cross-cut, is worth 251. per fathom.

Great North Laxey, 1½ to 1¾; the 96 fm. level end north is in a fine-looking lode, worth ½ ton of lead per fathom; the stopes, 1 ton; the 84 fm. level end is worth 1 ton; the 73, driving to get under the 80, is now yielding good stones of lead. South Herodsfoot, 1 to 1½; St. John del Rey, 18 to 18½; Tincroft, 19 to 19½; West Frances, 51 to 53; West Seton, 20½ to 20¾; Wheal Buller, 15 to 17½; Wheal Chiverton, 3½ to 3¾; Wheal Mary Ann, 16 to 18; Wheal Seton, 70 to 75; Wheal Uny, 3½ to 3¾; Taquair, 11s. 6d. to 12s. 6d.; Chonates advances to 30s. to 32s. 6d.; Anglo-Brazilian, ¼ to ½ dis.; Bedford Consols, 15s. to 17s.; Bedford United, 37s. 6d. to 42s. 6d.; Carn Brea, 19 to 20; Chiverton Moor, 3½ to 3¾; Frontino and Bolivia shares have been in demand, and have advanced to 19s., 21s. The advices under date Feb. 15 show a remittance of 598 ozs. of gold</

for the month of January, and a profit, estimating the costs the same as December, of 450%; and there seems little doubt, we are informed, that this rate of profit can be kept up. Wheel Agar, 25s. to 27s. 6d.; at the meeting a call of 3s. per share was made. We understand at the meeting to-day it was unanimously agreed to amalgamate Mineral Bottom and Wheel Chiverton sets.

The market for Mining Shares on the Stock Exchange has been quiet; towards the close of the week prices were stimulated by some very satisfactory advices from the Frontino and Don Pedro Gold Mines; the former showing a profit on the month of 400%, causing a great advance on the shares, and from the latter a satisfactory remittance on the other hand. St. John del Rey shares have been flat. The following are the closing prices:—Frontino, 1½ to 1; Taquaril, 4s. to 6s.; Chontales, 1½ to 1½; Don Pedro, 3½ to 3½ (ex div.); St. John del Rey, 18 to 18½; Anglo-Brazilian, 5-16ths to 3-16ths dis.; Anglo-Argentine, par to 1-16th prem.; Port Phillip, 19-16ths to 11-16ths; Rossa Grande, 7-16ths to 9-16ths prem.; Sao Vicente, par to 1½ prem.; General Brazilian, 1½ to 5-16ths prem. In British Mines, Great Wheel Vor shares have had a considerable rise, closing at the highest price of the week, 16½ to 17. Van shares still attract a large amount of attention as an investment. The mine is steadily improving, the lode in the shaft and cross-cut is very rich, and the shares in demand at higher quotations.—Glan Alun: Now that the water-wheel is completed this mine will shortly be in a good paying state, when the shares are safe for a great rise. West Chiverton, 5½ to 5½; Chiverton, 3½ to 3½; Prince of Wales, 21s. to 22s.; Chiverton Moor, 3½ to 3½; Great Wheel Vor, 16½ to 17; Great Laxey, 19 to 19½; Drake Walls, 19s. to 21s.; East Caradon, 7½ to 8½; Tre-lawny, 8 to 9; West Caradon, 4 to 4½; Van, 24 to 25; Glan Alun, 12s. 6d. to 13s. 6d. (ex call).

During the quarter ending March 30, the quantity of copper ore, the produce of Cornwall and Devonshire, sold at the Cornish Ticketing, was 21,870 tons, which contained 1475 tons 11 cwt. of fine copper, and realised 96,464 1/2s., being equal to an average of 47 8s. 2d. per ton of ore, and 657 7s. 6d. per ton of copper in the ore. During the same period the British, colonial, and foreign ores sold at Swansea amounted to 4420 tons, which contained 620 tons 1 cwt. of fine copper, and realised 44,671 1/2s. 6d., being equal to an average of 107 2s. 1d. per ton of ore, and 72 1s. per ton of copper in the ore. The average produce of the ore sold at the Cornish Ticketing was 63 per cent., whilst that sold at Swansea gave an average produce of 14 per cent. From this it will be seen that the aggregate sales by ticket were 26,290 tons of ore, containing 2095 tons 12 cwt. of fine copper, and realising 141,135 1/2s. 6d. The subjoined is a summary of the periodical sales at the Cornish and Swansea Ticketings respectively:—

Date.	Stand.	Prod.	Per cent.	Per unit.	Tons.	Fine cop.	Amount.
Jan. 7.	105 0 0	6 1/2	4 1 6	12 11	2432	156 2	10,098 11 0
Feb. 4.	107 11 0	6 1/2	4 3 6	12 11	2432	156 2	10,098 11 0
Mar. 11.	106 4 0	6 1/2	4 2 0	12 9	1529	98 18	6,298 5 0
Mar. 18.	113 2 0	6 1/2	3 13 0	12 10	3102	175 14	11,339 19 0
Mar. 25.	100 7 0	7 1/2	5 4 0	13 1 1/2	1478	117 15	7,726 0 0
Mar. 4.	104 1 0	7 1/2	4 9 6	12 9 1/2	1069	74 4	4,779 1 0
Mar. 11.	101 14 0	7 1/2	4 13 0	12 9 1/2	607	44 3	2,821 6 0
Mar. 18.	110 2 0	6 1/2	3 19 0	13 0	3394	206 10	13,401 16 0
Mar. 25.	98 6 0	6 1/2	5 7 0	13 0	1911	157 10	10,224 5 0
Total for the quarter.					21,870	1475 11	96,464 1 0
Quarter ending December, 1868.					28,876	1967 17	121,335 3 0
Quarter ending September, 1868.					28,414	1852 9	113,064 3 6
Quarter ending June, 1868.					31,644	2026 9	141,281 0 6
Total for the year.					110,804	7322 6	447,214 8 0
Showing a quarterly average of.					27,701	1830 12	118,036 2 0
Corresponding quarter, Mar., 1868.					29,781	1942 4	133,390 16 6

Date.	Stand.	Prod.	Per cent.	Per unit.	Tons.	Fine cop.	Amount.
Jan. 26.	105 16 6	17 1/2	4 13 1 2	14 10 1/2	1245	219 9	10,261 14 0
Mar. 2.	94 1 0	9 1/2	6 15 9	13 9	1129	110 1	7,666 19 0
Mar. 21.	93 13 0	14 1/2	10 2 9	14 3	2046	291 11	20,742 7 0
Total for the quarter.					4,420	620 1	24,671 0 6
Quarter ending Dec., 1868.					6,070	923 0	63,757 0 6
Quarter ending Sept., 1868.					10,572	1477 11	100,875 7 6
Quarter ending June, 1868.					12,397	1883 3	141,023 10 6
Total for the year.					33,459	4903 15	235,026 19 0
Showing a quarterly average of.					8,365	1225 19	87,581 15 0
Corresponding quarter, March, 1868.					5,127	869 1	61,906 3 6

At Camborne Ticketing, on Thursday, 2083 tons of ore were sold, realising 8235 2s. 6d. The particulars of the sale were:—Average standard, 106 1/2s.; average produce, 63%; average price per ton, 31 1/2s.; quantity of fine copper, 131 tons 13 cwt. The following are the particulars of the sales during the past month:—

Date.	Tons.	Standard.	Produce.	Per cent.	Per unit.	Ore copper.	Amount.
Mar. 4.	1069	104 0 0	7 1/2	4 9 6	12 9 1/2	124 9 1/2	10,261 14 0
Mar. 11.	607	101 14 0	7 1/2	4 13 0	12 9 1/2	63 18 0	6,298 5 0
Mar. 18.	8994	110 2 0	6 1/2	3 19 0	13 0	65 0 0	11,339 19 0
Mar. 25.	1911	98 6 0	6 1/2	5 7 0	13 0	65 0 0	10,224 5 0
Apr. 1.	2083	106 1 0	6 1/2	3 19 0	12 6	62 11 0	11,339 19 0

Compared with last week's sale, the advance has been in the standard 1 1/2s., and in the price per ton of ore about 2s. 3d. Compared with the corresponding sale of last month, the standard is about stationary.

The WINTER'S FREEHOLD GOLD MINING COMPANY and the GREAT NORTH-WEST COMPANY are being introduced on the London market by Mr. W. C. Smith, 6480 shares of 25s. each on the former adventure, and 10,000 shares of 10s. each in the latter, being offered by the prospectus, which will be found in another column of this day's Journal. The proportion offered in London is about half in each case, and the object of the step is to enable the companies, by the erection of more powerful machinery to develop more rapidly, and with greater efficiency than would otherwise be possible, the gold-bearing alluvial leads ascertained to exist in their several properties. The enterprise is more fully referred to elsewhere.

Mines.	Per share.	Amount.
Great Laxey	£0 10 0	£7,500 0 0
Wicklow	0 5 0	4,250 0 0
Devon Great Consols	4 0 0	4,096 0 0
Tincroft	0 10 0	3,000 0 0
South Caradon	5 0 0	2,500 0 0
Providence	1 10 0	1,500 0 0
Great Wheel Vor	0 5 0	1,417 0 0
Lisburne	3 0 0	1,200 0 0
Wheal Jane	2 0 0	1,024 0 0
Ding Dong	1 10 0	984 0 0
Wheal Mary Ann	0 17 6	896 0 0
East Pool	5 0 0	640 0 0
East Darren	2 0 0	600 0 0
North Levant	0 5 0	600 0 0
Don Pedro North del Rey	0 6 0	23,419 16 4
Fortuna	0 3 0	3,750 0 0
Alamillos	0 2 0	3,500 0 0
Linares	0 3 4	2,500 0 0
Total		£63,576 16 4

At the South Caradon Mine meeting, on Tuesday, the accounts for November and December showed a credit balance of 5448 1/2s. 3d. A dividend of 2500 1/2s. (5s. per share) was declared, and 2883 1/2s. 3d. carried forward. Capt. W. Rule and J. Holman say:—“We are much pleased to be still able to inform you that our mine continues to look well, with every prospect of a continuance. The discoveries we are making in different parts of the mine warrant us in stating we are maintaining our position, and will enable us to pay our dividends, and should the standard advance to increase them. During the past two months we have intersected, in the eastern part of the mine, one of the East Caradon south lodes, which presents a very promising appearance, and when developed we hope will prove a valuable addition to your property.”

At Ding Dong Mine meeting, on March 25, the accounts for the quarter ending Dec. 31 showed 51 tons of tin sold, at 69 1/2s. per ton, realising profit 1082 1/2s. 6d. A dividend of 30s. per share was declared, and 1317 10s. 9d. carried to next account. The mine is looking well, and the captains' report states that they have a strong hope of being able to return a similar quantity of tin for the current quarter, without reducing the stock of tin now on the mine unstamped, which they estimate to be worth about 14000. The number of stamps heads is to be increased to 44. The new discovery, on Rowe's lode, is now worth 38s. per fathom, driving at 8s. per fathom.

At the Providence Mines meeting, on Wednesday, the accounts showed a credit balance of 1917 1s. 6d., and the profit during the quarter was 1695 15s. 6d. A dividend of 1690 1/2s. (30s. per share) was declared, carrying forward a credit balance of 267 1s. 6d. The report stated that there was no material change in the prospects of the mine, which continues to look well.

At the Great North Laxey Mine meeting, on Tuesday (Mr. Buller in the chair), the special resolution empowering the directors to increase the capital by the issue of 2500 ordinary shares was unanimously confirmed. The report stated that there was nothing new to report in the bottom of the 110. The 96 fm. level end north is still in a fine-looking lode, worth 1 1/2 ton of lead per fathom. The stopes in the roof are worth about 1 ton of lead per fathom. The lode in the 81 fm. level end north continues to look quite as well as reported at the general meeting, and worth about 1 ton of lead per fathom. The 73, lately resumed, and driving towards this discovery, is improving, and now yielding good stones of lead. There are dressed and on the floors from 12 to 15 tons of lead. At Wheal Uny meeting, yesterday (Mr. R. McCallan in the chair), the accounts showed a loss on the quarter's working of 1192 13s. 1d., and a balance against the mine of 171 1s. 10d. The report from the agents stated that the machinery is inadequate to keep the water, hence the great loss on the past three months. The agents recommended converting the present 50-inch into a 60-inch pumping-engine, the sinking a new perpendicular shaft, and the erection of a 70-inch engine. The adventurers unanimously passed the following resolution:—“That this meeting approve the application made for new leases at a reduced royalty, and the committee is hereby empowered to make all necessary arrangements for carrying into effect the recommendations of the agents—the alteration of the present engine, the erection of a 70-inch cylinder steam-engine, and the sinking a new perpendicular shaft.”

At the Rhenish Consolidated Mining Company meeting, on Wednesday (Mr. Philip Wright in the chair), the accounts showed a balance of assets over liabilities of 861 19s. 4d., exclusive of the value of the property, machinery, &c. Details in another column.

The Braganza Gold Mining Company's shares are at 1/4 to 1/2 prem. COAL MARKET.—The fresh arrivals this week amounted to 138 ships. House coals were in good demand, and the whole quantity found buyers at last week's prices. Hartley's were less active, and prices declined 3d. per ton. Haswell Wallsend, 18s. 3d.; South Hetton Wallsend, 18s.; Eden Main, 16s.; South Hartlepool Wallsend, 15s. 9d.; Hawthorn Wallsend, 15s.; Hastings Hartley, 15s. Unsold, three cargoes: 30 ships at sea. (In last week's Journal, Original Hartlepool were quoted at 16s. 6d., instead of 18s. 6d. on the market.)

THE STANNARIES COURT.—For some years past the office of Deputy-Registrar of the Vice-Warden's Court has been very ably filled by Mr. F. MARSHALL, and it is generally felt by those who have business at the Court that it would be almost impossible to find a gentleman more competent, or better fitted, to occupy the post of Registrar, recently rendered vacant by the decease of Mr. W. Mitchell. With a view to give practical effect to the feeling, a memorial is in course of preparation (having already been numerous and influentially signed both in Cornwall and Devon) for presentation to the Prince of Wales's Council, praying for Mr. Marshall's appointment.

FOREIGN METALLURGY.—Our Correspondent, in his letter in the Supplement to this week's Journal, refers to the success of ironmasters in France in competing with England for certain American railway orders. It appears that the St. Dizier Iron Works have got an order for the engines and rails of the Memphis section of the great line between the Atlantic and the Pacific. This is understood to be the first time that the French ironmasters have treated directly with the Americans. Creuzot, too, it is alleged, has secured an order for 55 locomotives for one of the new Russian railways, M. Klett, of Nuremberg, getting the order for the wagons.

With this week's Journal a SUPPLEMENTAL SHEET is given, which contains—Prof. Warrington Smyth's Lectures at the Royal School of Mines—The New Methods of Manufacturing Steel, by Dr. B. H. Paul—The Mineral Resources of Nova Scotia—The Origin of Valley Gravels—Brazil and the River Plate—Unwise Colonial Policy—Quarterly Journal of Science—Directors' Reports of the Fortuna, Alamillos, Linares, and Laguna Companies—Foreign Mining and Metallurgy—Quarterly Sales of Copper ore—Foreign Mine Reports—Metallic Ropes—The Great Railway Systems—Science and Art, &c.

TO COAL AND IRON MASTERS, &c. A GENTLEMAN, experienced in MANAGEMENT, desires an APPOINTMENT as CONFIDENTIAL GENERAL MANAGER of an extensive COLLIERY, IRON WORKS, MINES, &c., or the development of fresh ground, where high-class certified antecedents of integrity, practical and business ability and energy, &c., would be appreciatively remunerated. Could take a pecuniary interest, if desired. Address, “Fides,” care of Mr. A. Day, Bookseller, 52, New-street, Birmingham.

TO CAPITALISTS, COMPANIES, ETC. A MINING ENGINEER, of LARGE EXPERIENCE, both in the COLLIERIES and IRON WORKS of SOUTH WALES, and in IRON MINES ABROAD, and now residing and holding an important mining agency in Wales, has a part of his time unoccupied, and is OPEN to MAKE ARRANGEMENTS with any GENTLEMAN or COMPANY who may wish to employ him in the INSPECTION or SUPERINTENDENCE of MINING WORKS or PROPERTIES. He is thoroughly acquainted with sound practical COAL and IRON MINING, and their correlative branches, and can produce the highest references as to respectability and competency. Reports, surveys, and valuations made, and railways, inclines, &c., planned and superintended. Address—“Alpha, F. T.” Pontypridd, Glamorganshire.

WANTED, a MINING CAPTAIN, to go out to ITALY. One accustomed to Gold Formations, and speaking Italian, or either French, Spanish, or Portuguese. Apply, stating salary and age, to Mr. PRANSKY MORRISON, Domo d'Ossola, Italy.

WANTED, a SITUATION, by a good practical ASSAYER and ANALYST, or to MANAGE COPPER SMELTING or other works, or to BUY ORES at home or abroad. Good references given, and good salary required. Address, F. J. MERRY, 4, Elliott-street, Swansea.

WANTED, by a Mining Company on the Continent, A YOUNG PRACTICAL CHEMIST, capable of MAKING A PERFECT ANALYSIS of COPPER ORES. A gentleman conversant with the extracting of copper by the wet process will be preferred. Apply, per post, stating terms, and enclosing testimonials, to “R. H.,” care of S. J. Scott and Co., Metal Brokers, Birmingham.

TO SLATE QUARRY WORKERS AND PROPRIETORS. WANTED, a PARTNER, with £500, in an excellent SLATE QUARRY in SOUTH DEVON. The quarry is now in full working order, with PLANT, &c.; or the proprietor is prepared to TREAT for the SALE of the QUARRY. For a view, and further particulars, apply to Mr. OLDFIELD, King's Arms Inn, Street, near Dartmouth; to Mr. T. L. OLDFIELD, Land Surveyor, Bridgetown, Totnes; or to Mr. SMITH, Solicitor, Dartmouth.—March, 1869.

TO CAPITALISTS. WANTED, a RESPECTABLE PARTY to JOIN in WORKING an excellent SLATE and SLAB QUARRY, or a PART of the PROPERTY would be SOLD. No one need apply but respectable capitalists, who could give good references. Apply, by letter, to Mr. H. W. JONES, 5, Earl-street, Wrexham.

WANTED, a PRACTICAL STEADY MAN, to MANAGE a BLAST FURNACE. He must be thoroughly acquainted with the practical working of furnaces, and able to take tools into his own hands in case of need. He will not be required to keep books. Salary, £80 a year. Apply by letter, with references, to “Blast Furnace,” Post Office, Neath, Glamorganshire.

WANTED, a FOUR or FIVE TONS TRAVERSING JACK SCREW.—Apply, “Box 41,” Post Office, Swansea.

FLUOR-SPAR.—A LARGE QUANTITY of the above, of the very best quality, FOR SALE. For further particulars, apply to Mr. MATTHEW GREENE, 14, Pinners' Hall, Old Broad-street, London, where samples may be seen.

VALUABLE SLATE QUARRY INVESTMENT. TO BE DISPOSED OF, on the most reasonable terms, ONE SHARE in the DOLGOED SLATE and SLAB QUARRY. Apply, by letter, to “J. C. R.,” Gaerwern Post Office, Corris, Machynlleth.

TO SPADE, SHOVEL, and SCRAP USE MANUFACTURERS. TO BE DISPOSED OF, the LEASE of the OLD FORGE, near KIDWELLY, CARMARTHENSHIRE, worked by water power; with the MACHINERY, PLANT, TOOLS, &c., all in good working order, and competent to turn out 200 dozen shovels per week. Apply to Mr. R. REENDERSON, Land and Mine Agent, Kidwelly.

TO LET, A VALUABLE COAL MINE.—Apply to Mr. GEORGE DAVIDSON, Mawley, Cleobury Mortimer, Shropshire.—Dec. 12, 1868.

FOR SALE. LOCOMOTIVE, PUMPING, AND WINDING ENGINES

By leading builders, and at greatly reduced prices; STEAM CRANES, BOILERS, CASTINGS, WAGONS (on sale or hire); RAILS, HAIRS, POINTS and CROSSINGS, SLEEPERS, WIRE and HEMP ROPES, and every description of RAILWAY and MINING PLANT (new and secondhand). Particulars and quotations on application to—T. E. MINSHALL, QUEEN STREET CHAMBERS, WREXHAM.

FOR SALE, ON VERY REASONABLE TERMS:—48 EARTH WAGONS, at £3 2s. 6d. each. 100 tons KENTLEDGE IRON. 309 tons STAFFORDSHIRE PIG IRON. 300 tons NEW DOUBLE-HEADED RAILS, about 73 lbs. per yard. 200 tons BEST SHEET IRON, damaged by salt water, No. 2 to 20 W.G. WANTED TO PURCHASE,—OLD SMALL PIT RAILS. Address to JOHN ROBERTS, Iron Merchant and Metal Broker, 55, Tower-buildings East, Liverpool.

RHENISH PRUSSIA. SEVERAL VALUABLE MINES FOR SALE,—LEAD, COPPER, BLENDE, and IRON. The Mining Laws of Prussia give with the concession to work, an absolute right of property in the mine for ever, subject only to a royalty of 2 per cent. Apply to Mr. YOUNGHUSBAND, 6 1/2, Wilhelm Strasse, Bonn-on-the-Rhine.

Date.	Mines.	Tons.	Price per ton.	Purchasers.
March 20.	Bronfloyd United	60	£13 10 0	Runcorn Smelting Co
25.	Cargill	75	17 9 6	Stock and Co.
26.	Great Laxey	100	22 15 0	Burry Port Company.
27.	Dylife	70	12 8 6	Walker, Parker, & Co.
29.	East Loggias	40	11 17 0	Panther Lead Co.
	Cwmystwith	50	12 1 0	ditto
	Glogfach	45	17 17 6	Sheldon, & P. S. Co.
	Bewick Consols	50	15 3 0	ditto
	Bwardra Consols	50	12 3 6	Walker, Parker, & Co.
30.	Dylife	58	12 10 6	A. Eytton.
31.	Plylimmon	50	11 5 6	Walker, Parker, & Co.
	Foxdale	100	22 7 6	ditto
	Caldbeck Fells	41 1/4	13 6 0	Sims, Williams, & Co.

Date.	Mines.	Tons.	Price per ton.	Purchasers.
March 25.	Cargill	160	£2 18 1	Vivian and Sons.

Date.	Mines.	Tons.	Price per ton.	Purchasers.
March 22.	Wheal Buller.	5 4 0 23	£74 0 0	£385 11 2—Mellancar.
	ditto	1 2 0 15	56 0 0	61 19 6—ditto
24.	Pedra-an-drea.	15 16 2 26	—	1150 5 1—
25.	Penhalls.	16 15 0 22	74 7 6	1246 10 3—
31.	North Roskear	14 14 3 14	72 0 0	1061 11 0—Mellancar.

Date.	Mines.	Tons.	Price per ton.	Purchasers.
March 31.	Caldbeck Fells.	4 1/2	£19 15 6	Bibby, Sons, & Co.
	ditto	8	6 14 0	ditto

Mines.	Tons.	Price.	Mines.	Tons.	Price.
South Caradon	502	£4601 1 6	Poldice Mines	105	£440 12 6
ditto	77	5 19 0	ditto	60	4 9 6
ditto	76	5 13 0	ditto	45	6 9 6
ditto	71	14 5 6	Phoenix Mines	76	4 19 0
ditto	70	14 0 0	ditto	64	4 3 6
ditto	65	6 2 6	ditto	56	7 2 6
ditto	60	13 7 6	North Treskerby	39	5 4 6
Glasgow Caradon	39	4 4 0	ditto	36	4 10 6
ditto	73	4 19 6	ditto	35	4 12 0
ditto	65	5 5 6	West Caradon	35	3 11 6
ditto	55	2 16 6	ditto	45	5 0 6
Clifford Amalgamated	65	1 11 6	Craddock Moor	45	4 17 0
ditto	60	2 8 6	ditto	40	4 6 0
ditto	56	1 5 6	New Treleigh	24	1 11 6
ditto	43	2 19 6	ditto	11	7 15 0
ditto	34	2 9 0	Tywarnhaile	13	2 14 0
ditto	17	4 14 0	ditto	12	2 17 6
ditto	15	3 2 15	Maudlin Mines	11	2 0 6
Poldice Mines	81	2 12 0			

Mines.	Tons.	Price.	Mines.	Tons.	Price.
South Caradon	502	£4601 1 6	West Caradon	105	£440 12 6
Glasgow Caradon	292	1277 4 6	Craddock Moor	85	390 5 0
Clifford Amal.	290	656 18 0	New Treleigh	35	123 1 0
Poldice Mines	260	1073 3 6	Tywarnhaile	25	69 12 0
Phoenix Mines	196	1042 8 0	Maudlin	11	22 5 6
North Treskerby	110	627 13 6			

Average standard.....£ 98 6 0 | Average produce.....8 1/4
Average price per ton.....£5 7 0
Quantity of ore.....1911 tons | Quantity of fine copper.....157 tons 10 cwt.
Amount of money.....£10,224 5 0

Consolidated Australian Gold Mines.

The Agent in London, WILLIAM COLLARD SMITH, Esq., is prepared to receive applications for 6480 Shares in

THE WINTER'S FREEHOLD GOLD MINING COMPANY, LIMITED,

BALLARAT, VICTORIA.

Capital £324,000, in 12,960 Shares of £25 each, viz.:—
6480 Shares paid up to £20 each, held in the Colony.
6480 Shares to be allotted in London.

12,960
£5 to be paid on allotment, on which scrip will be given, and £5 three months after allotment; the balance, if required, in payments not exceeding 10s. per share per month, but no further call will be made for the first six months.

BOARD OF MANAGEMENT, BALLARAT.

WILLIAM COLLARD SMITH—CHAIRMAN—Chairman of the Band of Hope and Albion Consols, and Great North-West Companies.

CHARLES SEAL, Chairman of the United Albion and Prince of Wales Companies.

JOHN HUNT, Director of the United Sir William Don Company.

H. LEVISON, Director of the Newington Freehold Gold Mining Company.

E. A. WYNNE, Chairman of the Black Hill Quartz Mining Company.

JAMES CROYLE, Director of the Black Horse Quartz Mining Company, Egerton.

EDWARD VINE GRIBBLE, Director of the Scottish and Cornish and Koh-i-Noor Gold Mining Companies.

The Agent in London is also prepared to receive applications for 10,000 Shares in

THE GREAT NORTH-WEST COMPANY, REGISTERED,

BALLARAT, VICTORIA.

Capital £250,000 in 5000 Shares of £20 each, and 15,000 Shares of £10 each, viz.:—
5,000 Shares of £20 each, fully paid up, held in the Colony.
5,000 Shares of £10 each, £5 paid up, also held in the Colony.
10,000 Shares of £10 each, to be allotted in London.

20,000
£2 10s. to be paid on allotment, on which scrip will be given, and £2 10s. three months after allotment; the balance, if required, in calls not exceeding 10s. per share per month, but no further call will be made for the first six months.
£25,000 has to be paid to the holders of the £20 shares; the remainder of the capital raised will be expended in future mining operations.

In the payment of dividends in this company all shares will rank of equal value, irrespective of the amount paid up.

BOARD OF MANAGEMENT, BALLARAT.

WILLIAM COLLARD SMITH—CHAIRMAN—Chairman of the Band of Hope and Albion Consols, and Winter's Freehold Gold Mining Companies.

WILLIAM CAMERON, Chairman of the Bonshaw Gold Mining Company.

A. J. FORBES, Manager of the Band of Hope and Albion Consols.

J. MUNRO, Director of the Koh-i-Noor Gold Mining Company.

W. BALLANTYNE, Chairman of the Prince of Wales Company.

The Liability in both Companies limited to the amount of the Shares.

PROVISIONAL COMMITTEE

(To allot shares).

J. J. FALCONER, Esq., 132, Piccadilly, Director of the Bank of Australasia, London, and late (for twenty years) Superintendent of that Bank in the Colonies.

J. F. V. FITZGERALD, Esq., 11, Chester-square, London, formerly Colonial Secretary in Victoria.

W. COLLARD SMITH, Esq., J.P., Langham Hotel, London, Chairman of Band of Hope and Albion Consols, and Great North-West Gold Mining Companies, Ballarat, Victoria.

(With power to add to their number.)

A Meeting of Shareholders of each Company will be called immediately after the allotment of shares, for the purpose of electing their representatives to manage the affairs of the company in London. An office and transfer register will also be opened forthwith for the transfer and registry of shares.

CONSULTING ENGINEER—THOMAS CARPENTER, C.E., M.E., London.

BANKERS—NATIONAL PROVINCIAL BANK OF ENGLAND, Threadneedle-street, London; and LONDON AND COUNTY BANKING COMPANY, 21, Lombard-street.

SECRETARY (pro tem.)—THOMAS DICKER.

TEMPORARY OFFICES,—AUSTRALIAN AND LONDON MINING AND GENERAL AGENCY, 4, ROYAL EXCHANGE AVENUE, ROYAL EXCHANGE BUILDINGS, E.C.

The object of these colonial companies in thus offering portions of their interests in London is to enable them, by the erection of adequately powerful mining machinery, to develop more rapidly and with greater efficiency than otherwise would be possible the gold-bearing alluvial leads ascertained to exist in their several properties.

DESCRIPTION OF THE MINES.
1.—The Winter's Freehold Property, area 1359 acres 3 rods and 25 perches, on the Ballarat and Sebastopol plateau. Title, grant from the Crown. No royalty, tribute, or dues.

2.—The Great North-West Property, area 3006 acres. Held under the mining laws of the district of Ballarat. No royalty, tribute, or dues, but a licence fee for right to mine to the Crown not exceeding £200 per annum.

The Winter's Freehold Gold Mining Company (Limited) purchased their freehold from Mr. John Winter, who originally bought it from the Crown. The Crown grant and conveyances now in London can be seen at the National Bank of Australia, 47, Cornhill.

The property adjoins the township boundary of Ballarat proper, and its surface is leased for agricultural and grazing purposes, at a rental of £900 per annum. Some of these leases have already fallen in, and the longest has but four years to run.

A number of the streets and roads of the townships of Ballarat and Sebastopol lead directly up to the property.

Several quarter-acre lots have been let by auction for building purposes, subject to all mining rights, at an average rental of £30 per acre per annum.

As a mining property its value will be best arrived at by examining the map of the Ballarat gold field, prepared and certified to by Robert Davidson, Esq., a Government mining surveyor of the district; and the subjoined statement as to the yields of gold won from the neighbouring claims working gold-bearing leads trending towards this property.

In this description of the property adherence is had to well-accepted data and to actual official and attested surveys.

The bores already put down by the company establish conclusively the existence of gold-bearing alluvium within the property.

Two shafts are in course of sinking, having two engines for winding, pumping, and gold-winning at each.

The Sebastopol plateau, of which the Winter's Freehold forms a part, has been for years the mining ground of a number of the most prosperous gold mines ever known. In corroboration may be mentioned the following well-authenticated facts:—

	Paid-up capital.	Dividends.
Nineteen adjacent companies, from early in 1860 to end of 1867, with twelve of these companies for the year ending Dec., 1868, besides clearing all expenses	£280,355 12 4	£2,127,026 1 4
Total	£280,355 12 4	£2,565,412 1 4

One of the number—the United Extended Band of Hope, now the Band of Hope and Albion Consols—was formed in 1864, to March, 1868, with

Being an average exceeding 170 per cent. per annum.

Accompanying the prospectus is a report by the mining manager of the above company, showing that the continuation of the run of gold from which the above was taken is in the Winter's Freehold Gold Mining Company's property.

The whole of the capital raised by the London shareholders is to be expended in mining operations. £25,000 will cover the whole cost of the work already done, including the plant and machinery on the ground, leaving the balance for continuing future mining operations.

Advices received by the last mail state that one shaft was expected to bottom on gold by about the end of January last, and the other within six months.

PARTICIPATION CHARENTAISE.

LA GRANDE MARQUE COGNAC.

V. JOUANNET, Managing Director.

LONDON OFFICES,—22 and 23, GREAT TOWER STREET.

Under the management of Mr. E. VIGNIER, of COGNAC.

THE LARGEST HOLDERS IN COGNAC OF THE FINE VINTAGE OF 1865, 1,200,000 GALLONS.

Equal to the best brands imported since the beginning of 1866.

THEY CHALLENGE COMPARISON.

Also of the very old Brandy of the first growths and of the last vintage, is to be obtained of all wine and spirit merchants and brokers.

The Articles of Association provide for an Inspector to be appointed by, and to be under the sole control of, the representatives of the English shareholders.

Feb. 1, 1869.—Official advices received by the February mail, via Marseilles, state that No. 2 had bottomed on gold, and would be in full operation in one month from that date; and No. 1 shaft had been sunk to the requisite depth of 400 feet, and was expected to be in gold within three months of the above date.

The Great North-West Company, Registered, Ballarat, holds 3006 acres, under the mining laws of the district. This area, which adjoins the town of Ballarat on the north-west, comprises a considerable portion of the ancient water-shed, lying beneath a plateau similar to that known as the Sebastopol, of which latter the Winter's Freehold forms a part.

A large and well constructed shaft, 335 feet in depth, has been sunk to within 20 feet of the gold-bearing drift. The present machinery and appliances having proved insufficient has rendered it necessary to raise additional capital. A second shaft is now going down, and plant and engines of ample power will be sent out from England to effectively work the mine.

Feb. 1, 1869.—LATEST ADVICE.—A third shaft has been begun, and the adjacent companies were getting gold.

Tributaries or gold-bearing leads coming from the north-east have been traced trending into the company's property, from one of which a neighbouring mine—the Great Northern Junction Gold Mining Company—is now realising large yields of gold.

The area of this mine is by far the largest in the colony.

The bores shown on the plan prove conclusively to the miner the proximity of the gold-bearing ground or gutter to the shafts now going down.

The relative position of the Great North-West Mine to the Winter's Freehold Mine may be ascertained by referring to the plans.

A list of credentials from all the principal banking establishments in the colony and standing there, furnished to the agent on his leaving Victoria for London, besides copies of various reports made by Government surveyors and others who are well acquainted with and have personally inspected the properties, together with plans of the properties, can be had on application, and every information obtained at the temporary offices of the companies.

The Articles and Memoranda of Association of the companies can be seen also at the temporary offices of the companies.

Applications in the annexed form will be received by the agent, WILLIAM COLLARD SMITH, Esq., at the temporary offices, 4, Royal Exchange Avenue, E.C.

FORM OF APPLICATION FOR SHARES.

To the Agent and Provisional Committee of the Winter's Freehold Gold Mining Company (Limited), Ballarat.

GENTLEMEN,—I request you to allot me _____ shares in the Winter's Freehold Gold Mining Company (Limited), Ballarat, and I hereby agree to accept the same, or any lesser number which may be allotted to me.

Name in full

Address in full

Occupation

Date

FORM OF APPLICATION FOR SHARES.

To the Agent and Provisional Committee of the Great North-West Company (Registered), Ballarat.

GENTLEMEN,—I request you to allot me _____ shares in the Great North-West Company (Registered), Ballarat, and I hereby agree to accept the same, or any lesser number which may be allotted to me.

Name in full

Address in full

Occupation

Date

Now ready, price 2s.,

THE NORTH SOMERSETSHIRE COAL FIELD.—

By SEWARD W. BRICE, B.A.

OPINIONS OF THE PRESS.—“A work of great practical value to all interested in the development of a great South England Coal Field.”—*Mining Journal*.

“The task of estimating the quantity of coal still remaining in the North Somersetshire Coal Field is very difficult. Here we have a very troubled field of geological enquiry, and of great perplexity and expense to the coal miner. Mr. Brice understands his subject, and his style of writing is clear and interesting.”—*Colliery Guardian*.

London: BEMROSE and LOTHIAN, 21, Paternoster-row; or post free from the Gazette Office, Tiverton.

A LARGE AMOUNT of MONEY being EXPENDED in ADVERTISING in WORTHLESS PUBLICATIONS, C. H. MAY will be HAPPY to AFFORD INFORMATION to ADVERTISERS in the SELECTION of the BEST and MOST INFLUENTIAL.

C. H. MAY'S GENERAL ADVERTISING OFFICES.

ESTABLISHED 1846.

ADVERTISEMENTS inserted in all the London Provincial, Foreign, and Colonial Newspapers.

78, GRACECHURCH STREET, CITY, E.C.

Notices to Correspondents.

“Much inconvenience having arisen in consequence of several of the Numbers during the past year being out of print, we recommend that the Journal should be filed on receipt: it then forms an accumulating useful work of reference.

COPPER SMELTERS.—Will some reader kindly inform me whether the Union of Copper Smelters is thoroughly re-established and complete as before? And, if so, where can the official list be obtained, showing the prices fixed by them at their respective meetings?—J. L.

STRAY PARK.—I am glad to find that the adventurers are, at last, demanding something more satisfactory from the committee of management than the meagre reports and heavy calls to which they have hitherto submitted too patiently. If the present price of tin will not only pay cost of working, but leave a profit for the shareholders, I would suggest that the concern be wound-up, or a complete change effected in the management.—ANOTHER DISSATISFIED SHAREHOLDER.

THE MINING JOURNAL,

Railway and Commercial Gazette.

LONDON, APRIL 3, 1869.

CAPITAL, LABOUR, AND UNIONISM.

“Mr. NORMANSELL had a great amount of work to perform, along with Mr. CASEY, as they had now something like from 1600 to 1800 men out on strike, which includes the men at Denaby Main, Thorncliffe, Silkstone, and Tinsley Park Collieries.” This we extract from a reported speech delivered last Tuesday, by Mr. WILLIAM BROWN, at the new “usual weekly” meeting of the miners who are “out” at the Denaby Colliery, near to Sheffield; and they were used in connection with an apology for the absence of Mr. NORMANSELL. The meeting took place after that had occurred, which the *Sheffield Daily Telegraph* of the following day described in these terms:—

“They (the colliers out) assembled in large numbers at Sparrow Barracks, and after some deliberation decided that the best course to take would be to wait until the non-Union men should leave their work at the pit, and then give them a warm reception. Accordingly, about a hundred of them took possession of two bridges close to the colliery, so that they might be enabled to watch the exit of the black sheep from the pit bank. They waited patiently for a considerable period. Some women congregated before the houses occupied by the new colliers, and commenced singing songs, the gist of the ditties setting forth allegiance to the Union. One aged dame was particularly demonstrative. She stated that her name was Betsy, and she called upon her companions in a stentorian voice to ‘come on and show their courage by joining their locked-out bread-winners in baying the black sheep.’ The call was at once responded to, and Betsy marshalled her little force excellently. The procession marched to Gray’s Bridge, where the men were still awaiting the approach of the obnoxious strangers. The day was exceedingly cold, and in the interval the women diverted themselves with vocal exercise, whilst their husbands and friends indulged in athletic games. A number of musical instruments were provided for the occasion—tin whistles; cans and kettles were beaten with sticks, making a great noise. At last, after the lapse of about two hours, the men from the colliery were observed in the distance escorted by a posse of policemen. As they approached the bridge they were greeted with hooting and yelling, accompanied by the beating of brass and tin, the women, headed by the indefatigable Betsy, joining in the demonstration. The non-Unionists appeared not to enjoy it. It was amusing to witness the colliers walking side by side with the policemen playing their penny whistles, and waving red handkerchiefs in the faces of the officers. When the crowd reached Sparrow Barracks, where some of the non-Unionists reside, the uproar increased, and it was with difficulty that the policemen succeeded in forcing their way through the noisy rabble. However, the non-Unionists got safely into their cottages, and no violence was perpetrated.”

Against such conduct the working man should be protected, though “no violence was perpetrated,” for who does not know that it is far more effective upon a miner than a sound drubbing. We repeat our statement of a fortnight ago, that such conduct should be regarded as intimidation, and we trust that in the new Bill it will be so classed. The industrious operative suffers far more from his fellow-workmen than he does from employers. By the former his freedom is restricted in Unionism at every turn, and his net earnings curtailed. At this moment a large contract, involving a quarter of a million sterling, is being carried out in this country, where a handful of Unionists are attempting to compel more than three times their number to work upon terms which would be a loss to them of an average of 4s. a week. Because they have elected to be as industrious as they are able, the “job” in the particular department referred to is taboed as “black,” and for four months two men have been maintained at the cost of the Union as pickets to warn handcraftsmen of the class in question from going to it, whilst the men at work have been “spotted,” and will not be allowed when they leave their present employment to begin work again till they have each paid, or consented to pay, the 2s. black mail, which their refusal to be overruled by the local Union regulations reducing their wages has entailed. The question is one of overtime, and the plea of the minority, which the Union is enforcing, is that it is against the regulations of the district.

Yet we are told by the Union advocates, alike amongst colliers and ironworkers, as others, that the Unions have had the effect of increasing the earnings of working men. The question is one on which great stress is laid. Upon it the most reliable information that can be obtained is valuable at a time when Unionism is assuming so much, and certain self-styled “friends of the working man” are claiming great things for it. The best testimony may well be looked for from the Trades Union Commissioners. In the just-issued Blue Book, containing the report of those gentlemen, we have it:—

“In those parts of the country where Trades Unions do not prevail there is very much the same fluctuation in the labour market, the same rise and fall of wages, depending on a brisk or dull demand for labour, as takes place under the influence of the Trades Unions. It appears from the evidence of Mr. CLARK, the trustee and manager of the Dowlais Iron Works, under the will of the late Sir JOHN GUEST, where from 9000 to 10,000 workpeople are employed, that in South Wales, where those works are situated, there are no Trades Unions, and that in those works there is at all times the freest and most friendly intercourse and discussion between the workmen and the manager of the works on all questions connected with their employment, and that there wages fluctuate according to the varying circumstances of the trade as freely as in those parts of the country where Trades Unions prevail; with this important difference, that whilst in the latter strikes and stoppages of the works are frequent, in the former they are unknown. Mr. CLAY, the managing director of the Mersey Steel and Iron Works, at Liverpool, whose evidence we have already referred to with reference to this branch of the subject, says their wages have been higher than those paid in other works where the men belong to Unions; and Mr. MARKHAM, the manager of the Staveley Iron and Coal Company’s works, says there has been no Trades Union in their district for 20 years, and he believes the wages have been higher than in any district of the country where Unions are in existence.”

Masters who insist upon the freedom of their people from the thralldom of Unionism are the true friends of their operatives. The result may be that the men will have to do more work, but, as shown in respect of the Dowlais Iron Works, their ultimate remuneration will be higher, and their employment less irregular, at the same time that there is even more freedom of communication with the masters and managers. In such cases employers hesitate long before they determine to drop their men’s wages. To our certain knowledge colliery proprietors and ironmasters not unfrequently bear an unremunerative trade many months without asking their men to share with themselves the loss, even as has been done by the Preston master spinners. And when at length they ask their people to take a needed reduction are we to be told that all the burden is to fall upon capital? As much real hurt is done to the men by the “enquiries” of philosophers when employers have resolved upon a drop as results from the promised help to men on strike by other orders by workmen, for the result is only to encourage the men “out” to maintain the indefensible ground which they have taken up, but which they must ultimately abandon. Neither the “enquiry” nor the promise will yield substantial results. What but unrest to the working man can come from “philosophical” indications of “the social future of the working classes?” respecting which the *Scotsman* smartly says:—

“We behold the working man of the future photographed with pre-Raphaelite minuteness. We see him working regularly eight hours a day, always provided with regular work, living in a house of his own, drinking clean water supplied

to him (at the expense of others), attended by a doctor (ditto), benefiting by education (ditto), reading nice books (ditto), visiting an adequate supply of museums and picture galleries (paid for by others), hearing on Sundays and summer evenings in the parks and public places excellent music (ditto), and eating food which other people have been careful to see is good for him. The Professor announces that the workman's lot will not be brilliant, but that, with such means of instruction, amusement, and subsistence gratuitously afforded him, it will be not intolerable, and we quite agree with the prophetic Professor, it will not.

Then, as to the promises of extraneous operative aid, the managers of colliery and ironworkers' Unions know what that has meant hitherto. In the last ironworkers' strike it meant, even after delegates had been sent the country over, not one penny per member per man out. Yet, buoyed up with promises, the men were kept out from week to week waiting the return of delegates from remote districts. It is acknowledged at Denaby Main that a levy of 3s. 6d. a fortnight has been determined to be required from the Unionist colliers in work for the support of the men "out." Workmen know that their "mates" will not stand being fleeced to this extent long, so the "outs" are invoked not to "betray" the men who are thus helping them by being told that circulars asking for help have been issued to the organised Trades Association, who also are being appealed to by the ten thousand operative spinners of Preston, who refuse to accept what alone they can be paid without ruin to their masters.

Mr. BROWN, and Mr. NORMANSELL, and Mr. CASEY have now and again shown themselves superior to some of the men of whom they are the acknowledged leaders. It is a cause for regret that they should at the present time be engaged in a struggle the hopelessness of which, despite all the strategies of "spiriting away" some of the new men, and frightening away others by jeers and threatened violence, the number of men at work at the pits where the "1600 to 1800" were employed is steadily increasing. On behalf of the willing men, we protest against the style of Mr. BROWN's allusions to the manner in which the working man's freedom to labour where and at what terms he pleases is being attempted to be destroyed in South Yorkshire and Derbyshire. Adverting to the reception given to the colliers at work described above, Mr. BROWN is reported to have said that "he did not know that he was going to find fault with them, but he would tell the men and women that it was a dangerous experiment." And the manner in which it is attempted to coerce men from returning to work is thus reported:—

"He (Mr. BROWN) had heard that one man had seceded from them. ('He has come back again.') Do not say anything to him. (Another Voice: 'He has come away.') The further he had gone the better. Several in the meeting requested Mr. BROWN to name the man, but the Chairman interposed, and said it would not be wise to mention the man's name. As the reporters were leaving the room the colliers shouted, 'BYWATER, BYWATER, that's his name.' It is not, of course, to be imagined that Mr. BROWN, when he said this, remembered the practice of DANIEL O'CONNELL, who, when there was a man particularly obnoxious to 'the repeal of the Union,' was in the habit of warning 'the boys' that if they met with that man they were sure not to duck him in the first horse-pond they came to. But we have heard the anecdote repeated at colliers' meetings, and it would not be surprising if Mr. BROWN's peaceful allusions to BYWATER should be misinterpreted by the Sheffield colliers.

Employers and every other genuine and practical friend of the collier will approve the determination of Messrs. NEWTON, CHAMBERS, HUNTSMAN, POPE, and PEARSON to rid their men and themselves of the intolerable social oppression to which they are being subjected.

LIQUID FUEL.

It is now upwards of four years since one of the chief advocates of liquid fuel, in stating his opinion that 42 gallons of oil was quite equal in steam-producing power to 1 ton of coals, admitted that this required to be proved, and volunteered the assurance that it should be proved. [See *Mining Journal*, Dec. 24, 1864.] Since that time experiments have been carried on at Woolwich Dockyard and elsewhere; numerous inventors of methods by which liquid fuel was to be burnt, have come forward to recommend their several inventions; great attention has been devoted to this subject; and another material for the purpose has been introduced to notice—the dead oil, or creosote, obtained as a waste product in the manufacture of naphtha and pitch from the coal tar of gas works. This material is certainly more suitable for use as liquid fuel than any other yet known, since its characters are such as to render it free from any objection on the score of risk, which may fairly be urged against the use of petroleum or paraffin oil. Amid all this activity on the subject of liquid fuel we have not, however, yet met with the promised demonstration that 1 ton of oil is equal to 6 tons of coal, although this point is one of the greatest importance for deciding the question as to the applicability of liquid fuel in the place of coal for steam navigation. But, meanwhile, a number of discrepant estimates as to the capability of liquid fuel have been put forward, and a still greater number of statements have been made as to the results obtained with it, these being still more discordant than the estimates. The system of converting the oil into the condition of spray before burning it was a great step towards effecting combustion more freely and completely than was at first possible. This system, however, involved the disadvantage of requiring an expenditure of steam which was equivalent to a reduction of the heating power and efficacy of the fuel; and, besides this, the use of a steam-jet for the purpose, though very simple, is at the same time very wasteful, and, as pointed out by Mr. BRAMWELL at the Institute of Naval Architects last year, is probably one of the worst among all the unprofitable modes of employing steam. The plan adopted by Messrs. DORSETT and BLYTH of making the oil do this work itself, without using steam, was, therefore, very advantageous, inasmuch as it afforded a means of obtaining the full effect the oil was capable of exercising, without any such deduction as was unavoidable when a steam-jet was used.

The statements made as to the results obtained in using as liquid fuel the creosote, or dead oil produced from gas tar, vary considerably. Messrs. WISE, FIELD, and AYDON claim to have obtained an evaporative effect equal to 19.5 lbs. of water per lb. of oil. Mr. ALFRED CROW declares 1 ton of oil to be equal to 3 tons of coal. Mr. BARFF claims to have evaporated 22 lbs. of water per lb. of oil; Mr. THOS. CROW 18.91 lbs.; another firm, using his apparatus, represent the oil as being equal to 2.86 times its weight of coal. Mr. GODDARD, of Ipswich, takes it as equal to 3 tons of coal; and Mr. RICHARDSON claims to have evaporated 18.5 lbs. of water per lb. of oil. All these results, however, fall very far short of the efficacy claimed for liquid fuel, which we have already referred to: instead of its being equal to six times its weight of coal, the highest of these results do not make it more than three times as effective as coal. Even the apparent existence of this latter relation is dependent upon the figures given in these estimates being expressive of the actual duty of the fuel, and not the evaporation from water at the boiling point, for with that vagueness and want of precision which characterise most of the statements as to the results obtained with liquid fuel, there is no information as to which mode of expression the figures given are to be understood as referring to. So far for the positive statements, which, instead of proving the astonishing assertion that 1 ton of oil is equal to 6 tons of coal for producing steam, are far from proving that it is equal to even 3 tons. There are, it is true, certain less positive statements, indicating that the larger results have been, or may be obtained; thus, for instance, Capt. SELWYN, upon whom Mr. RICHARDSON's mantle appears to have fallen, informed the Institute of Naval Architects that in one factory 46 lbs. of water were evaporated by 1 lb. of creosote. However, for the present at least, and, perhaps, for a long time to come, this must be regarded, like Lord DUNDREARY's conundrums, as one of the things "no fellow can understand." At the same time we have some other estimates of the capabilities of liquid fuel, and some other results obtained in trials of it, both of which agree in making creosote equal in steam-producing power to one and a-half, or twice as much coal, according to the extent to which the efficacy of the latter may be realised in practice. This result has also the advantage of having been conducted with the greatest care and regard to accuracy, not on a mere experimental scale, but in a vessel of 500 tons, in a passage from Deptford to Gravesend and back. This fact, and the accordance of the result with the calculated capability of the oil, according to its composition, certainly render it more trustworthy than any other results yet put forward, which neither agree with such calculation, nor are supported by any sufficient evidence that the observations on which they are based were correct.

Nothing can be more prejudicial to the successful introduction of

any kind of improvement or novelty than the assertion that it affords advantages which the most slender knowledge of the subject enables one to perceive are fictitious. Such a course is sure to impede rather than facilitate the adoption of suggestions for improvement, or if exaggerated statements be accepted, the result can only be disappointment and disgust. We, therefore, recommend those who are still disposed to urge the adoption of liquid fuel as a substitute for coal in steam navigation, to revise their claims in regard to the efficacy of this material, and to the economy to be gained by its use, so that by establishing their recommendations on a safe and rational basis, they may secure for themselves, though late, a title to consideration which they have not yet possessed.

THE WATER QUESTIONS IN SOUTH STAFFORDSHIRE.

The evidence of the Government Inspector has yet to be given in the matter of the inundation at Brierley Hill, but there is no room to doubt that the 6,500,000 gallons of water which got into the pit and immured the men came from old pockets a considerable distance off, at a higher level, and on property not owned by Earl DUDLEY. In all probability, as we last week intimated, it had been pent up a long time, and it would likely have remained so for a much longer time if it had not been for the late heavy rains, which so augmented the accumulations that they burst their bounds one after another, till, rushing along the ironstone and shale seams which underlie the Thick coal, they found an outlet at the foundation of the immense water dam which was laid in those measures. But for the channel which the water had got into, this dam would have been sufficient to keep back all the water that could have come against it, for even now it remains undamaged. It seems difficult to have provided against this form of dam-blowing. We know of no precedent to the Brierley Hill case, any more in respect of the cause than in relation to the happy results, which, and the means that produced them, we dwelt upon last week. About 1864 seven men were drowned, also in the Thick coal workings, at a colliery at Bradley, belonging to Messrs. G. B. THORNECROFT and Co.; but in that case the water came upon them when they were driving a heading to a pocket on their own property, and the water came upon them because they got too near to it, without having ascertained their progress with a boring-rod.

At Brierley Hill water was known to come from a neighbouring pit belonging to the noble earl; and the pumping-engine had been in to draw it off, and the dam to prevent a too rapid "come" when repairs might be needed to the pump. Together the dam and the pump were effective to the full, and much more water than came at the worst of times was drawn off with 6½ strokes of a pump which, after the accident, was kept on for five days and nights at 9½ strokes. The draining arrangements were so thorough that they had been effected at no less a cost than 25,000*l*. The evidence of the Government Inspector will afford us another opportunity of adverting to this very interesting case. At present neither has the water been got out, nor the ventilation restored. The workings will, however, be ready for a thorough examination early next week.

The Tipton Basin difficulty has been temporarily arranged. It is to be desired that before the permanent arrangement has been made, there will be a thorough investigation of the whole question by scientific and practical men, whom South Staffordshire itself affords.

THE IRON AGE.—In these islands alone, 550 blast-furnaces are blazing, reducing by their intense heat nearly 12,000,000 tons of iron ore into 4,800,000 tons of metallic iron, which, at its place of production, has a value of about 12,000,000*l*. sterling. Those blast-furnaces consume more than 14,000,000 tons of coal; and to convert the pig-iron obtained into bars, rails, and the like another similar quantity of coal is required. This great iron industry is not confined to this country. In France it is no less active, and it boasts of ironworks which rival those of Dowlais, of Barrow, or of Middlesbrough. The works of Messrs. Schneider and Co., at Le Creusot, the largest in France, have 50 acres under cover. Here are 15 blast-furnaces with 27 steam engines blowing air for them, and forging iron besides. At the mines and works above 9500 men are employed. Belgium, Prussia, Austria and Sweden are active in this great race; and America is striving, with earnest and honourable zeal, to overtake Europe in the production of iron from her native ore, with her own coal.

THE NEW METHODS OF MANUFACTURING STEEL.—A complete revival of interest in what may be termed the chemical processes of manufacturing steel having taken place in consequence of the development of the invention of Mr. HEATON, the paper read by Dr. B. H. PAUL before the Inventors' Institute was particularly opportune. In the Supplemental Sheet to this day's Journal we publish a complete report, for which we are indebted to the *Scientific Review*, both of the paper and the discussion upon it; and as a vast amount of sound practical information was elicited it cannot fail to make the especial claims of the Heaton process more thoroughly understood.

NITRO-GLYCERINE MADE HARMLESS.—Although the immense power of nitro-glycerine as a blasting material has never been questioned, the danger attending its use has entirely prevented its introduction, except in a very diluted form—that is, to saturate woody or other granular substances. In dynamite, however, the great objection is that the power is reduced exactly in proportion to the increased safety secured. To remedy both evils simultaneously, Mr. HORSLEY, the well-known scientific chemist of Cheltenham, has invented an improved protective matter, which he designates safety nitro-glycerine powder. Mr. Horsley states that the preparation is designed for the safe conveyance of nitro-glycerine or blasting-oil to any part of the world, the great advantage being that it admits of the oil being easily recovered, at any time, and rendered available for the miner's use, even over the hole itself, if necessary, by following certain instructions to be sent with each package. With regard to the safety of the protected nitro-glycerine, the inventor is prepared to submit it to severe tests, and claims that it will not ignite or explode on the application of fire or heat; that it cannot be exploded by a blow on an anvil; and that it cannot be exploded by a percussion-cap fired in a charge of it. More ample details of the invention will be given in a future number of the Journal.

PURIFYING COAL GAS, &c.—Mr. ALEX. ROLLASON, in his improved process of purifying coal gas and obtaining ammonia from coal gas products, takes peat bog, or any other decomposed vegetable matter, and having disintegrated it, mixes with it strong sulphuric acid, in about the proportion of one part of the latter to three parts of the former, after which it is subjected to a slow heat until it has become charged by the sulphuric acid, or after the peat bog, or any decomposed vegetable matter, has been disintegrated, it is subjected to a heat sufficient to dry but not carbonise it, and the acid is then added. Secondly, he takes clay, mud, or similar siliceous matter, and after burning them so as to expel the carbonic acid they contain, and having disintegrated or ground the burnt matter, mixes with it sulphuric acid, in the same way and proportion as with the peat bog, or any decomposed vegetable matter. Either of the foregoing first and second products are put into ordinary coal gas purifiers, and the gas passing through them is deprived of its ammonia, which these products fix, forming sulphate of ammonia. Or they may be mixed with ordinary coal gas water containing ammonia, which water would be subsequently evaporated until the material was saturated with sulphate of ammonia, or hydrochloric or nitric acid may be used instead of sulphuric acid in obtaining the first or second products, so far as relates to its being used for coal gas water, in which case muriate, or nitrate, or sulphate of ammonia would be produced.

THE VELOCIPEDE AS A MECHANICAL AGENT.—The practical value of the velocipede as a means of locomotion has been thoroughly discussed in a well-considered paper by Mr. LAUDER, C.E., read before the Liverpool Polytechnic Society. As advantages and disadvantages of bicycles, tricycles, &c., are very equally balanced as compared with each other, Mr. Lauder's conclusions may be considered to apply equally to all kinds of velocipedes. The velocipede possesses no advantage; that is to say, a man can, with equal exertion, walk or run quite as far in a day of eight hours as he can travel with a velocipede in the same time. Mr. Lauder, being a velocipede himself, has given the velocipede all the advantage in the argument that was at all pos-

sible, yet he can only show that, although for a journey of a few minutes duration a speed of 24½ miles per hour may be obtained, no more than 80 miles in the day of eight hours can be traversed. Mr. Lauder is of opinion that, as a means of travelling, the velocipede has very little chance of coming into use, although as an instrument of healthful exercise it is worthy of consideration.

THE NORTH OF ENGLAND IRON AND COAL TRADES.

MIDDLESBROUGH, APRIL 1.—The quarterly meeting of the North of England Iron Trade was held in the Royal Exchange, on Tuesday. It seemed as if, on account of the intervention of the Easter holidays, there was an unusual amount of slackness in the trade. There were several exhibitors of machinery, models, &c. Messrs. Backhouse and Dixon, of the Cleveland Shipyard, Middlesbrough, showed some beautiful models of screw steamers; and Messrs. Rimmington, of Newcastle and Middlesbrough, exhibited a working model of the new Anglo-American power hammer, which attracted much attention. They also showed specimens of Palford's magnetic paints, and House and Gardner's self-lubricating engine and pump packing. Mr. Jones, of Fox, Head and Co., Newport Rolling-Mills, Middlesbrough, showed his non-conducting cement for boilers, and the firm displayed a fine case of minerals of the Cleveland district. Mr. A. S. Rake, of Newcastle, exhibited in motion the beautiful little model of the "Special" steam-pump, worked by compressed air, which attracted so much attention at the last quarterly meeting. A large one was also shown, kindly lent for the occasion by William Jones and Co., of Middlesbrough Chemical Works. These pumps appear to be rapidly coming into favour in high quarters, and we understand that upwards of 800 are now in successful operation for a great variety of purposes, many of them in this district. They are made of all sizes and capacities. Specimens of the patent Feet Valve-Tap, Patent Steam Suet Digester Lubricator, Green's Patent Solid Drawn and Brazed Copper and Brass Tubes, also solid cold-drawn seamless steel tubes, ferrules, bushes, hollow steel spindles and shafting were exhibited. Some of these were very interesting. They are drawn from Frith and Sons' best steel, and vary in thickness from one-thirty-second part to half an inch. The manufacture of these specialties is about to be vigorously pushed by the proprietors, who have purchased and set to work the whole of the patents and machinery of the Hydraulic Tube Drawing and Steel Ordnance Company. Stroudeley's patent ramps, or guide plates, for rapidly re-railing rolling stock, were also shown in operation, a line of rails being laid down for the purpose, and a railway wagon provided, illustrating the certainty and dispatch and saving of time effected in case of a line being blocked by loaded or unloaded trucks being off the rails. They are now in use on the North-Eastern and all the other leading railways in the kingdom. Samples of the effects of Travis's patent vegetable colloid, for preventing and removing incrustation and corrosion in steam-boilers, were likewise shown by Mr. Rake, as well as Ransome's Patent "Free Grit" Grindstones, and other specimens of this interesting scientific discovery. Mr. Rake is also sole licensor for the North-Eastern and Cleveland district for Wilson's Patent Puddling-Furnaces, which have for some time been in successful operation at the Thornaby Iron Works, Stockton, and where their use is being still more extended. The advantages are stated to be great saving in fuel, increased yield, and prevention of smoke. The principle is also applied to land and marine boilers and furnaces of all kinds.

The staple iron of the district, pig, realised the best prices, and was in good demand. The quotations were for No. 1, 43s.; for No. 2, 47s. 6d.; for No. 3, 46s.; and for No. 4, 45s. 6d., net cash, f.o.b. on trucks at works. Deliveries are reported large, and shipments are less restricted. Forge iron is in good demand. The rail mills of the district are in fair work, and the shipbuilding yards continue well off for orders, plates being consequently in request. Foundries can generally find enough to keep them in work full time. There appears to be a slight turn for the better in the coal trade, and there have been more shipments from the Auckland Valley and South Durham generally at the ports of Hartlepool and Middlesbrough. It is so far encouraging to find that several new pits have commenced operations within the past few months in the Dearness Valley, and it is expected that more new mines will shortly be sunk in the neighbourhood of Consett and Shildon. The export trade is on the improve, and is likely to become better before the summer has far advanced.

TRADE OF THE TYNE AND WEAR.

GATESHEAD, APRIL 1.—On the whole, trade generally shows more animation, and shipbuilding continues very brisk on the Tyne, most firms having plenty of orders in hand. There has been but little change in the coasting trade, but that to the Baltic is now opening, though not with any great spirit, 9*l*. a keel only being offered for Cronstadt. The greatest demand has been for vessels to load coke for Carthage and Barcelona. The arrivals have been very moderate, the weather being tremendous in the North Sea since Friday last, which has almost put a stop to sailings. On the whole, the coal trade is decidedly improving, and more confidence is felt as to the coke, gas, and household coal, &c., in future. Most of the coking coal collieries in Durham are well employed; around Spennymoor the colliers have never during the recent depression worked less than eight or nine days per fortnight, and they are now working full time. Many of the gas coal collieries are also working full time, and the house coal collieries are slowly improving. On the west side of Newcastle eight or nine days per fortnight appear to be the rule—that is, at works producing house and manufacturing coal, the coking coal collieries being almost at full work. The steam coal trade still remains in the worst position, but this will, no doubt, shortly improve, as the decided steps taken by the Admiralty Board must give it a great impetus. The only objection ever urged against the North Country steam coal was the production of smoke; its high and quick evaporating powers were never denied, and it has now been proved that the smoke can be very easily avoided by a little care. It will be recollected that when a deputation, sent from the coalowners of this district, waited on Mr. Childers a short time since on the subject of the use of Hartley coal in the Navy, that gentleman showed a great desire to ascertain the merits of the question, and promised that the subject should receive the most careful consideration. The result of this consideration has been, as intimated last week, that justice is to be done to this coal without delay.

The water is now reduced at Hebburn to a depth of nearly 100 fms. from surface, and the High Main seam will shortly be drained there. It will, however, be necessary to reduce the water to a considerably lower depth at Wallsend before the same seam is drained there, as the measures are lower than at the former place. The Cornish engine lately erected at Hebburn is doing excellent work, and reducing the water very quickly.

The death of Mr. T. W. JOBLING, a mining engineer of some eminence, took place a few days ago. His ancestors were viewers, and eventually owners, of the old Hartley Collieries, near Senton Sluice, six miles north of the estuary of the Tyne. The old Hartley seam was worked there, and proved to be of such excellent quality that the same seam was proved further west, until the Cramlington Colliery reached this seam, which is nearly twice the thickness it reaches at Hartley, it being only about 3 feet at the latter place and nearly 6 ft. at Cramlington. This occurred about the year 1828, and this was the first important winning in the western part of the great Hartley steam coal field, which has since been occupied by the largest collieries in the district. Mr. Jobling was at one time connected with the Jarro Colliery, and latterly with the Walker and Bebside Collieries, the latter having been won, developed, and carried out by him in a very superior manner.

The visit of Mr. Reverdy Johnson, the American Minister, to Newcastle has caused a considerable sensation, and he has been very warmly received by all classes. He arrived on Monday evening, and dined privately with the Mayor. On Tuesday a visit was made to the extensive chemical works of Messrs. Allhusen, and afterwards he received addresses in the Town Hall from the Chamber of Commerce, Iron Trade, Coal Trade, &c.; and in the evening a public banquet was held in the Town Hall, the Mayor, Mr. Morison, being in the chair, and when Mr. Johnson met most of the leading coal owners, ironmasters, and manufacturers, an interchange of sentiments and ideas took place, which was very pleasing to all parties.

The great and increasing capabilities of the River Tyne for commerce was most particularly alluded to by Mr. Cowen, M.P., and others, it being noticed that lately vessels had left the Tyne drawing 25 ft. of water, and carrying 125 keels of coals, at least four times the burthen formerly considered very considerable. The great increase in the alkali manufacture, one of the most important staple trades of the district, was also very properly commented upon. This trade continues to progress very fast, and a great trade is carried on with the American States, and as Mr. Johnson expressed the opinion that peace will, probably, continue to exist between the two nations, this and other branches of trade may be expected to improve, particularly if the absurd import duties in America were modified or repealed. It appears that those duties injure foreign manufactures, and also the bulk of the people, and only enrich a small class of American ironmasters and other manufacturers.

On Wednesday there was a special train to Tynemouth for Mr. Johnson and his party, where they were entertained at luncheon by the Chairman of the Coal Trade, Mr. Straker, and in the afternoon the extensive iron works and rolling-mills at Jarrow were visited. To-day Mr. Johnson is to visit Sunderland, where he will inspect the docks and other objects of interest, and it is also expected that he will visit the large colliery at Ryhope, where he will see coal workings on a scale of the greatest magnitude, and unsurpassed both as to extent and the science displayed by any similar works on the globe.

REPORT FROM MONMOUTH AND SOUTH WALES.

APRIL 1.—The confirmation of old list prices at the Preliminary Meeting of Ironmasters was a proceeding generally anticipated by both buyers and sellers, and although enquiries have become a little more numerous, still there is not that substantial increase in the requirements of buyers to warrant an advance in the recognised quotations. The rail branch continues in a firm and healthy state, and as there is every probability of the favourable prospects referred to in previous reports being soon realised, there is no doubt entertained of the mills being kept regularly going during the whole of the summer months. A large number of vessels are being laden with rails at the local ports, chiefly for the United States and Russian markets, and by the time they are cleared a considerable reduction will have been effected in the quantities now awaiting shipment. Steamers are also expected to arrive to load rails for the Black Sea and the Sea of Azoff, and for many weeks to come the exports to that quarter will be heavy, as some thousands of tons have to be sent this season to the Muscovite empire. There are more iron freights on offer at the local ports than has been known for years past, which indicates pretty clearly that better times are not far distant. On home account business is quiet, but, as the railway companies have nearly all got over their financial troubles, they will soon be larger buyers. Pigs command a moderate sale. At the Quarterly Meeting of Tin-Plate Makers an advance of 2s. per box was determined upon, to meet the rise which has taken place in tin.

Dullness characterises the Steam Coal Trade, the demand being below the average, and the majority of the collieries are on short time. The ironmasters who ship coal have secured some contracts at a price that an ordinary colliery proprietor could not afford to accept without incurring a serious loss. There is a brisk sale for house qualities, owing to the advent of colder weather.

A letter has been published from the Admiralty, stating that the prohibition of the use of North Country coal in the Navy is removed. This may temporarily add to the depression in the steam coal trade, but it is believed that the order will ultimately have no practical effect. The plan of mixing the two coals has been tried more than once before, but the intrinsic superior qualities of Welsh steam have always been so clearly proved that the Admiralty authorities have been obliged after a short trial to revert to the using of Welsh coal alone. The present order looks more like a political sop to our North Country friends than a decision following any real practical investigation as to the superiority of mixed over Welsh coals used alone.

Another serious colliery explosion is to be reported, the scene of the catastrophe being the Mynydd Newydd Colliery, near Swansea. From the evidence at the inquest, it appeared that the explosion occurred in a part of the workings known as the Ebenezer Top Hole. This hole had been driven for the purpose of uniting two parallel shafts, so as to form a communication between them. The thoroughfare not having been sufficiently completed to put up canvas, gas accumulated after the men left work. The deceased, Lewis, incautiously went into the place with a naked light, and the result was an explosion, by which his own life and the lives of two others were sacrificed. Mr. Thomas E. Wales, Government Inspector of Mines for the district, said he visited the colliery after the accident, and found that the explosion extended but to a small part of the workings. The colliery was in good order, and was well ventilated. The explosion was no doubt caused by Lewis taking his naked light to the working, where a small quantity of gas had accumulated. The jury returned a verdict "That the three deceased met with their deaths from suffocation, produced by the choke or after-damp succeeding the explosion, caused by the indiscretion of the lad Lewis."

The arrivals at Swansea include—the Eta, from Junin, with 135 tons of nitrate of soda, for H. Bath and Son; Gitanilla, from Cuba, with 580 tons of copper ore and 75 tons of copper regulus, for Cobro Company; Harriet Williams, from Cherbourg, with 180 tons of iron ore, for R. Crawshaw.

THE TIN-PLATE TRADE.—The Quarterly Meeting of the trade was held at the Bell Hotel, Gloucester, on Wednesday, Mr. Woodruffe, of the Machen Works, Monmouthshire, in the chair. There was a large attendance of manufacturers, and among the buyers were Nash and Co., Liverpool; Bolitho and Sons, Liverpool; and Von Dadelzen and North, London. In the course of a long discussion which took place on the present position and future prospects of the trade, it was stated that, as compared with three months ago, the price of tin has advanced no less than 18s. per ton, and the opinion generally prevailed that a further rise might be looked forward to. It was pointed out that prices that then returned a fair profit to the manufacturer were now quite inadequate, in consequence of the heavy advance in tin. To meet these altered circumstances it was unanimously decided to advance prices 2s. per box, and it was further resolved that at the expiration of existing contracts the make should be reduced 33 per cent. The effect of this, if loyally carried out, will be to prevent the accumulation of stocks, and at the same time restore prices to that position by which something like a fair profit will be secured to the maker. The exports of tin-plates from the United Kingdom in the period embraced from June 1 to March 24 of this year reached nearly 400,000 boxes, which indicates that there is a good and increasing export demand. Three years ago the annual shipments to the American States were about 900,000 boxes, which increased in the succeeding year to 1,300,000 boxes, and last year the total came up to 1,500,000 boxes. The great and important increase here shown in the American demand would have had a highly favourable effect on prices had it not been for the rapid multiplication of new works, which have more than met the additional requirements of the Americans.

REPORT FROM DERBYSHIRE AND YORKSHIRE.

APRIL 1.—The week has, as usual, been a broken one, and but little has been done. The iron works, however, are in about the same state as they have been reported for several weeks past. Few of them are doing sufficient to keep their hands actively going. The demand for steam coal has rather improved of late, and there has been a little more doing in household qualities for London and the South, still the trade is by no means active. The Sheffield trades, more particularly the heavy branches, are improving, and the prospects are much better than they have been. In South Yorkshire a very fair business is being done, the demand for rails taxing the powers of some of the leading makers, so that for some time to come the mills will be kept fully going. For coal there has been a better enquiry, and a rather heavier tonnage going to London and the South. The carriage rate by railway to the metropolis is still the moot point with our coalmasters, and strong hopes are entertained that a considerable reduction will shortly take place, as it is stated that the London and North-Western, the Great Northern, and the Midland Railway directors will shortly meet, for the purpose of coming to some arrangement by which the present rates will be reduced. This has been

found necessary, owing to the very great falling off in the quantity of coal sent to London by the principal railway companies, and which has seriously affected their revenue. The trade to Grimsby is only of a moderate character, and no change for the better is anticipated until the Baltic is opened, and which is not expected to be free from ice before the end of the present month. There is a little more doing in engine fuel to South Lancashire, and an average tonnage is going from Goole to the home ports.

THE COLLIERY DISPUTES IN SOUTH YORKSHIRE.—In addition to the dispute at Mr. Huntsman's collieries, near Sheffield, matters are fast coming to a crisis at Denaby Main, where the men have been out about three weeks, owing to the manager refusing to employ any hands who are connected with the Miners' Union. The result has been that the company have now about 180 men at work, being fully as many as they require. But the "black-sheep," as they are termed, are subject to a great deal of annoyance in going to and from their work. Whilst at the colliery on Thursday afternoon, we found that the men had to be guarded by a considerable body of police to their houses; whilst a number of the old hands, who came up quite close to the gates of the works, taunted the men to such an extent that a fight appeared imminent. One of the new hands remarked that he thought he had a right to sell his labour where he pleased, and that he did not think that the pit was sunk for the purpose of finding work for a certain body of men to the exclusion of all others. On the men proceeding homewards they were preceded by a mob of some hundreds, about 25 of them playing on tin whistles and drums. The men were hooted and hissed as they proceeded along, and flags thrust into their faces, and everything possible was done to incite to a breach of the peace. The new men, however, behaved with very good temper, and gave no signs of physically opposing those who insulted them. Judging, however, from what we saw, there does not appear to be the slightest doubt but what there will be a conflict between the two parties—and that of a serious character. The manager stated that the dispute, so far as the company was concerned, had ended—they had as many men as they required, and on Wednesday drew out more coal in a single shift than they had done since the colliery was opened out.

COLLIERY EXPLOSION NEAR WIGAN—TWENTY-EIGHT LIVES LOST.—On Thursday morning an explosion occurred at High Brook Colliery, Ashton-in-Makerfield, belonging to Messrs. Mercer and Evans, whereby 28 persons have lost their lives. The High Brook Colliery has two shafts, an upcast and a downcast, and the seam in which the catastrophe occurred is the Orrell Four-foot. The seam, known to be fiery, has been worked with great caution. All the lamps were locked and examined by the firemen; no collier was allowed to fire a shot except the fireman had first examined his place and given him permission; and care was taken to secure the services of the most competent men as underlookers and their assistants. Richard Gortley, the fireman, commenced his customary examination at four o'clock on the morning of the accident, and afterwards returned to the pit eye to lock the lamps of the colliers when they descended the shaft to their work. Several shots, it is stated, were made ready for firing on the previous evening, and Gortley was asked to superintend the ignition of these as soon as possible. He went to consult with a brother fireman on the pit bank, and then, descending again, he left the pit eye, and proceeded to the southerly part of the workings for the purpose of examining the places in order to give the necessary sanction to the firing. Immediately after this the explosion occurred. The force of the blast does not appear to have been felt at any great distance, but in the immediate neighbourhood of the southerly workings the stoppings have been blown down, and much of the roof has been loosened. The Government Inspector was down in the afternoon, the whole of the workings have now been explored, and 28 in all brought up. It is believed that the accident occurred through blasting, as there was very little fire-damp.

REPORT FROM NORTH AND SOUTH STAFFORDSHIRE.

APRIL 1.—There is usually very little doing in the Iron Trade in the fortnight between the Preliminary Meeting and the Quarter-Day meetings, which take place next week, and this week by no means offers any exception to the rule. On the whole, the works have been doing fully as much during the last week or two, and the feeling as to future prospects is rather more favourable. The more satisfactory reports from the Cleveland district encourage expectation that the flowing wave will reach South Staffordshire. The returns published by the Board of Trade for February show that the exports of iron and steel were decidedly in excess of either of the preceding years, and that the United States were taking very much larger quantities, in spite of the heavy duties by which the ironmasters of that country seek to shut out the iron of Great Britain. There are slight signs of further recovery in the Hardware Trade, but so far there seems little hope that 1869 will witness the restoration of real activity in either this or the iron trade in Staffordshire.

The Quarterly Meeting of the Iron and Coal Masters' Association of North Staffordshire has been held to-day at Stoke-upon-Trent. The passing of a resolution that prices should remain unchanged was simply a matter of form. It was stated that there was a steady but by no means brisk trade. Some conversation took place as to the operation of the Factories Acts, and a strong opinion was expressed that they were operating greatly to the detriment of the boys who were deprived of work by their operation, and were in many cases living in idleness; whilst it was noticed that "coal picking," or to speak plainly coal stealing, by boys, was greatly on the increase.

The flooding of the Lock's Lane Colliery, at Brierley Hill, which has excited so much attention, has not yet been fully explained, the inquest on the remains of the man who died having been adjourned to permit of a complete examination of the workings. His death was caused, not by drowning, but by inhaling the poisonous gas, a proof by how slender a thread the party of which he was one held to life, which they unquestionably owed to keeping near the edge of the water, and catching the ripples of fresh air which the descending tank forced into the mine. The twelve survivors attended the parish church of Brierley Hill on Sunday, publicly to return thanks to God for their preservation, and near them sat Mr. F. Smith, the Earl of Dudley's chief agent, the mining engineers, and those who were directly engaged in bringing up the poor fellows from their dreary imprisonment. The occasion was one of great solemnity, and the vast congregation was deeply moved by the allusions of the Vicar to the circumstances. Words are vain to add anything to the force of the bare facts of the patient endurance, the persevering exertions, and the brave adventure displayed by the rescued and rescuers, but the feelings to which they gave rise were well expressed on Monday evening, by Mr. Rupert Kettle, Judge of the Worcestershire County Court, at a meeting in Wolverhampton in connection with the adoption there of the Free Libraries Act. After comparing the meeting and its object—the provision of the means of improvement for all—with the bull-baiting which took place in the town thirty years ago, the learned gentleman said:—

"The working-classes were the richest of the different classes in the kingdom, and all that they wanted was unity to become the most powerful. (Loud applause.) He did not mean unity for the purpose of opposing a class as a class, but unity for maintaining their own, and above all, unity for the purpose of using their own. When the class who very properly put down bull-baiting, for instance—when, however, would have gone down of itself if had been left alone—put down those amusements of the people which they regarded as demoralising, they ought to find them substitutes. He had been told, in connection with movements in which it had been his happiness to take part in Wolverhampton, that there must always be 'hewers of wood and drawers of water.' He, however, reminded such people that there was a primal ordination that every man should work; and if a man shirked his work, pleasure would not come at his call. What he insisted upon, and pertinaciously insisted upon, was that the working class was not worse than any other class, and if the members of it were not so good as those above them it was the fault of those who were above them, and not of those who were called to labour with their hands. What had taken place at No. 27 pit, at the Wallow's Colliery—henceforth, he trusted, of historic memory, alike in respect of the men in the pit, and those who released them—should make anyone proud who could say that he was a hewer of wood or a drawer of water."

Mr. Kettle, amongst other proofs of the interest he has taken in the working-classes, has for some years acted as umpire over a joint council of masters and men representing the building trades of Wolverhampton, which was formed for the purpose of settling disputes by argument and fair consideration instead of by strikes and lock-outs, and which during several years has been completely successful. It is satisfactory to find that Mr. Kettle is about to meet Mr. Mundella, the member for Sheffield, whose success in organising a system of arbitration for avoiding strikes at Nottingham is so well known. The two gentlemen will compare the respective plans which they have adopted, and mutually consider how far the best features of each may be combined for accomplishing the end in view—the prevention of the economic and social wars which have so greatly paralysed our industry, and have deprived masters and men, and the community who purchase their productions, of the full value of skill and energy brought to bear upon the industry of the country.

The heroic rescue at Brierley Hill has this week been followed by a most lamentable accident at Cradley. The shaft of the Cradley Heath Colliery, of Messrs. N. Hingley and Sons, needing some repairs, two doggies—John Willetts and Henry Careless—went down on Wednesday morning to make an examination, and to put right

what was out of order. For this purpose they descended about half-way down the shaft, and as soon as they had done what was necessary, were drawn up in answer to their signal. Instead of the skip, however, stopping when near the surface, it ascended at full speed to the pulley. One of them attempted to jump out, and fell down the shaft, a depth of 100 yards, and was literally dashed to pieces. The other was thrown upon the surface, but so seriously hurt that his recovery is regarded as hopeless. The engineman, Benjamin Danks, has been taken before the magistrates and remanded. Until the case has been officially enquired into, it is better to abstain from giving any explanation of this sad accident. It, however, with the Brierley Hill accident, suggests a subject well worth the attention of the Midland Institute of Mining Engineers. Suppose some competent member would prepare a paper on a particular class of accidents—say flooding of mines—show how, in various instances, they have occurred, how an irruption can best be dealt with when it does take place, what is best for those imprisoned to do, and how best they may be rescued. Much valuable practical experience might thus be made common property, shared not only by managers, but also by the men themselves, who may be the first, if instructed, to note signs of danger, whilst they are deeply interested in the seconding of the best means of saving their lives under certain circumstances.

At the Tunstall Police Court, to-day, Mr. Wm. Simpson, the proprietor of a colliery at Bucknall, was charged by the Messrs. Alcock, owners of a neighbouring estate, with "stealing" 1000 tons of coal, worth 200*l*. The proceedings were taken under 23*d* and 24*th* Vict. cap. 38, the offence charged being that the defendant wilfully worked beyond his own boundary, and took away a part of the 8-ft. seam, known as the Cockshead coal. The only evidence adduced was that of Mr. W. S. Coe, mining engineer, who had surveyed the trespass from a new shaft sunk by the proprietors of the estate into which it was alleged defendant had extended his workings. The defence is that the defendant had no felonious intention, and the case, which was adjourned, has not yet advanced far enough to afford any ground for forming a judgment on this point beyond the mere fact of working beyond the boundary. Within a few years two cases of the kind—one at Dudley and one at Darlaston—have been tried in this county. The general tradition in South Staffordshire is that before the offence was rendered penal by statute it was very general indeed.

DUDLEY.—The iron works, with some few exceptions, have been kept pretty well in gear during the week, but some of the manufacturers of finished iron complain of orders being short, and only coming in, as it were, from "hand to mouth." The current prices of Staffordshire pig-iron are:—All mine, hot blast, 3*l*. 12*s*. 6*d*. to 3*l*. 15*s*.; cold blast, 4*l*. 5*s*.; best grey forge, 3*l*.; mottled, 2*l*. 17*s*. 6*d*.; mottled, No. 1 and 2, 3*l*.; hydrate pigs from 3*l*. 10*s*. to 4*l*., according to the brand; other sorts according to make and quality. Preparations are being made to re-light some more furnaces on the principle of altering the mouth of the furnaces so as to utilise the gases. The waste of fuel under the ordinary plan of smelting iron amounts yearly to many thousands of tons, in South Staffordshire and East Worcestershire, but there seems to be a desire on the part of many of the makers of pig-iron to check this great loss in future. The majority of them have to buy a considerable portion of their coal and ironstone; hence the stern necessity has arisen that they must either economise in the cost of the "make" or give up, for it is manifest they cannot go on at a profit. Many have succumbed, and others, probably, will follow in train. There are fifteen furnaces west of Dudley that have either been demolished or put out of blast on account of the contiguous mines being exhausted. (Wolverhampton Chronicle.)

REPORT FROM SCOTLAND.

MARCH 31.—The lowest price of Pig-Iron for the year was reached yesterday, when, although a good business was being done, 52*s*. 4*d*. was accepted for some lots, but the market closed rather firm. Some of the makers are making up parcels of warrants and sending them into store, and these coming upon the market, in addition to what speculators held and are now disposing of, are bringing down prices, and perhaps 5*l*s. will be touched before the market takes a permanent turn. In making an inspection of makers' stocks at the Monkland Canal basin to-day we notice that Carnbroe brand seems to be the lightest, there being larger stocks of Summerlee, Gartsherrie, and Langloan brands than of the former. In addition to a more than average shipping demand for Scotch pigs, manufacturers of malleable iron and founders in this neighbourhood are estimated to be melting fully 1500 tons of pig a week more than they were doing at the beginning of the year; and, were it not that pigs are in plethora, and makers, for want of demand, had stored warrants on their own account, which were at once laid on the market, prices would have gone up, in all probability, to something like 55*s*. per ton. Yesterday the market rallied, and 52*s*. 6*d*. cash, and 52*s*. 9*d*. one month, ruled at the close. The shipments of the week amounted to 13,395 tons, against 9825 tons in the same week last year, Ardrossan and Greenock giving 4799 tons of the former amount, a large portion of which was carried by the first detachment of the Canadian fleet. The Middlesbrough imports till date were 17,605 tons, against 26,551 tons, being a deficiency on the first quarter of 8946 tons. Today the market became buoyant, and 10,000 tons were done at 52*s*. 9*d*. up to 53*s*. cash, and 53*s*. to 53*s*. 3*d*. one month, closing buyers 53*s*. cash, and 53*s*. 3*d*. one month; sellers 1*l*. per ton higher. No. 1, g.m.b., 53*s*. 9*d*.; No. 5*l*s., Gartsherrie, 60*s*. 9*d*.; Coltness, 61*s*.; Glen-garnock, 55*s*.; Langloan, 54*s*. 6*d*. Malleable iron, on account of shipbuilders being now well manned, is in extensive demand for ship building purposes, and every mill that can turn out this description of iron is in requisition. The trade in bars is also good, and one iron-founding firm is going on with a contract for railway chairs for India, which will keep them fully employed for 12 months to come. Large makers of cast-pipes have also engagements for many months, but the smaller makers and engineers' founders are rather quiet. Blochairn, Glasgow, Govan, and North British brands are 7*l*.; Coats, Drumpeller, Dundivan, Monkland, and Muirkirk, 6*l*. 15*s*.; Clifton, Coatbridge, Phoenix, and Rochsolloch, 6*l*. 12*s*. 6*d*.; f.o.b. here, less 5 per cent. Railway chairs, 75*s*.

The Coal Trade is not a whit more hopeful than it has been for the past months of this year, and while there is an average shipping demand the home trade has been very restricted, so that the orders for spring shipment were fought and scrambled for on such terms that it was almost no object for anyone to have them. The trade has not been so bad for 20 years. The shipments from the ports for the week just ended were 22,450 tons, against 22,535 tons same week in 1868. The condition of the miners is most deplorable, and instead of seeking to better their position by augmented activity, they are still relying to a great extent on the virtue of strikes. The Conference, which fell to be held here on the 29*th* inst., has been postponed *ad die*, till a "better organisation" of miners has been effected. Mr. McDonald is said to be progressing slowly towards convalescence.

The prospecting which has been pursued over Sutherland and the adjoining county of Caithness for gold has had a favourable result, especially about Dunbeath and Berriedale. The Duke of Portland, however, has placed "watchers" on his grounds at the latter place to prevent "digging," while the latest news to hand brings the joyful intelligence that the Duke of Sutherland has thrown open the strath of Kildonan to the labours of those who "thirst for gold." The gold found in the Berriedale strath is said to be rougher and larger than that in the Kildonan estate, and more plentiful, but it is "watched," to the annoyance of the whole digging fraternity, who threatened to visit the place in the face of the prohibition. To this menace the Duke of Portland replied by presenting a petition to the sheriff for an interdict against about 30 persons from Dunbeath, Latheron, and neighbouring districts who had either visited Berriedale, or threatened to do so, and the petition has since been served upon them. Of course, this settles the matter in the meantime. It is generally understood that up till now there has been between 400*l*. and 500*l*. worth of gold found; the price given for it is 4*l*. an ounce. A nugget has been discovered weighing about 3 ozs. The opinions of those who designate themselves "experienced diggers" differ as to the probable value of these fields; and the quantity found, considering the number of searchers engaged, would not warrant the supposition that in the North we only had to "open into the hills a spacious wound, and dig out ribs of gold." Whatever the future may do, the past will not more than barely remunerate for the labour spent in the search.

Shipbuilding on the Clyde is enjoying a very large share of the work which was formerly done in English shipyards. This week Hill and Co., Port Glasgow, have contracted to build an iron ship of 1100 tons for Mr. Potter, London.

LONDON GENERAL OMNIBUS COMPANY.—The traffic receipts for the week ending March 28 amounted to 9460*l*. 19*s*. 10*d*.

ANGLO-MEXICAN MINT COMPANY.

Notice is hereby given, that the ANNUAL GENERAL MEETING of shareholders in this company will be HELD at the office, at 10, FINSBURY PLACE, South, on TUESDAY, the 6th day of April next, when one director will be elected in the place of H. W. Schneider, Esq., who goes out by rotation, but is eligible for re-election, and will be proposed accordingly. The chair will be taken at One o'clock precisely.

ALFRED GODFREY, Secretary.

THE FORTUNA COMPANY (LIMITED).—Notice is hereby given, that the HALF-YEARLY GENERAL MEETING of the shareholders in this company will be HELD at this office on THURSDAY, the 8th April next, at half-past Two o'clock P.M., to receive the accounts, balance-sheet, and reports of the directors, auditors, superintendent, and mining agents for the half-year ending 31st December last. To elect three directors in the place of William Cox, Robert Palgrave, and Richard Taylor, Esqrs., who go out of office by rotation, but who are eligible, and offer themselves for re-election. To appoint two auditors for the ensuing year: James T. Dorrington and Charles Roberts, Esqrs., who are eligible, offer themselves for re-election. And for general business, as authorised by the Deed of Settlement.

By order of the Board,

H. SWAFFIELD, Secretary.

5, Queen-street-place, Upper Thames-street, London, March 31, 1869.

THE ALAMILLOS COMPANY (LIMITED).—Notice is hereby given, that the HALF-YEARLY GENERAL MEETING of the shareholders in this company will be HELD at this office on THURSDAY, the 8th April next, at a quarter to Two P.M., to receive the accounts and balance-sheet, with reports from the directors, auditors, superintendents, and mining agents for the half-year ending December 31, 1868. To elect two directors in the place of Robert Henty and Charles Morris, Esqrs., who go out of office by rotation, but who are eligible, and offer themselves for re-election. To appoint two auditors for the ensuing year: John Robinson Peill and Henry D. Abercrombie, Esqrs., who are eligible, offer themselves for re-election. And for general business, as authorised by the Deed of Settlement.

By order of the Board,

H. SWAFFIELD, Secretary.

5, Queen-street-place, Upper Thames-street, London, March 31, 1869.

THE LINARES LEAD MINING COMPANY (LIMITED).—Notice is hereby given, that the HALF-YEARLY GENERAL MEETING of the shareholders in this company will be HELD at this office, on THURSDAY, the 8th April next, at One o'clock P.M., to receive the accounts, balance-sheet, and reports of the directors, auditors, superintendents, and mining agents for the half-year ending 31st December, 1868. To elect three directors in the place of William Cox, John Phillips Judd, and Robert Henty, Esqrs., who go out of office by rotation, but who are eligible, and offer themselves for re-election. To appoint two auditors for the ensuing year: Robert Palgrave and J. R. Peill, Esqrs., who are eligible, offer themselves for re-election. And for general business, as authorised by the Deed of Settlement.

By order of the Board,

H. SWAFFIELD, Secretary.

5, Queen-street-place, Upper Thames-street, London, March 31, 1869.

THE LAGUNA SILVER MINING COMPANY (LIMITED).—Notice is hereby given, that the SIXTH ORDINARY GENERAL MEETING of the company will be HELD at No. 36, King William-street, London, E.C., on WEDNESDAY, April 7th, 1869, at Two o'clock P.M., for the purpose of receiving the directors' report and accounts, and the election of a director and auditor.

By order of the Board,

GEORGE E. HOOKE, Secretary.

36, King William-street, London, E.C., March 22, 1869.

£400,000 LOAN.**TROUVILLE ASSOCIATION (LIMITED).**

THE SUBSCRIPTION LIST will be CLOSED on WEDNESDAY, the 7th April instant, up to and inclusive of which day APPLICATIONS for the SEVEN PER CENT. MORTGAGE DEBENTURES will be RECEIVED by the BANKERS, viz.:

Messrs. HERRIES, FARQUHAR, AND Co.,

St. James's-street, London; and

Messrs. ROBERTS, LUBBOCK, AND Co.,

Lombard-street, London.

By order, H. NANSON, Secretary ad Interim.

Trouville Association (Limited), 26, Old Broad-street, E.C.

BRAGANZA GOLD MINING COMPANY (LIMITED),

IN THE PROVINCE OF MINAS GERAES, BRAZIL.

Capital £30,000, in 50,000 shares of £1 each.

Deposit for registered shares 2s. 6d. per share on application;

2s. 6d. on allotment.

Calls not to exceed 2s. 6d. per share, nor to be made at intervals of

less than three months.

Deposit for fully paid-up scrip (to bearer) 2s. 6d. per share on application;

the balance of 17s. 6d. on allotment.

CHAIRMAN.

CHARLES MORRIS, Esq., Director of the United Mexican Mining Company.

BANKERS.

THE CONSOLIDATED BANK, Threadneedle-street, and its Branches.

BROKERS.

Messrs. GEORGE BURNARD AND Co., 69, Lombard-street, E.C.

SECRETARY (pro tem.)—WILLIAM EDWARDS, Esq.

OFFICES.—No. 4, COLEMAN STREET BUILDINGS (48A), MOORGATE

STREET, LONDON, E.C.

The Braganza Company's Mine is situated (as shown by the map on the prospectus) about midway between the St. John del Rey Company's Mine, Morro Velho, and that of the Don Pedro North del Rey Company. In the same district are also the celebrated Gongo Soco (which has yielded gold to the value of £1,500,000 sterling) and the Boga Grande and Taguari Mines.

Captain William Williams, who resided within two miles of the Braganza Company's Mine for ten years, and knows it well, reports of it—"In all my travels through South America and Australia I never saw so large blocks of quartz from any lode so rich in gold as those from this mine."

Six bags of the ore have been assayed by Messrs. Johnson, Matthay, and Co., and yielded rather over 22 ozs. of gold to the ton of ore. The ores of the other profitable mines in the district yield, on the average, only 1 oz. of gold per ton, out of which it is well known very large dividends are paid.

The mine stands high and healthy, and, being an open cutting, no pumping machinery will be required. Much preliminary work has been already done, and returns may be made as soon as the reducing apparatus is erected. There is abundance of labour, provisions, water, and pasture.

The total capital required to purchase and work the mine on a moderate scale is estimated at only £26,000, and the net yearly profit from working on that scale is calculated will amount to £28,250, or over 100 per cent. per annum on the capital employed. More extended workings would yield even a larger profit.

Prospectuses, with maps and full particulars, and forms of application for shares, may be obtained of the Secretary or Brokers, as above.

CHANGE OF NAME.**THE ASSOCIATION FOR THE PREVENTION OF STEAM-BOILER EXPLOSIONS.**

ESTABLISHED 1854.

OFFICES.—41, CORPORATION STREET, MANCHESTER.

PRESIDENT—WILLIAM FAIRBAIRN, Esq., C.E., F.R.S., LL.D., &c.

CHIEF ENGINEER—MR. LAVINGTON E. FLETCHER, C.E.

At the last ANNUAL MEETING, held in the Town Hall, Manchester, on Tuesday, March the 9th (WILLIAM FAIRBAIRN, Esq., LL.D., &c., in the chair), the title of the association was modified as follows:—"THE MANCHESTER STEAM USERS' ASSOCIATION FOR THE PREVENTION OF STEAM-BOILER EXPLOSIONS, AND FOR THE ATTAINMENT OF ECONOMY IN THE APPLICATION OF STEAM," so that it may be cited in brief—

THE MANCHESTER STEAM USERS' ASSOCIATION.

This association undertakes the periodical inspection of steam-boilers, with a view of preventing explosions, and gives a pecuniary guarantee to the amount of £300 on each approved boiler, so that in the event of explosion, whether it arise from collapse of the furnace tubes, rupture of the shell, or failure of any part of the boiler whatever, all damage done thereby, other than by fire, will be made good to the extent of £300.

The association also assists its members by advice on the construction of new boilers, and other matters relating to economy and safety in the use of steam.

Terms: ONE GUINEA AND A HALF PER ANNUM PER BOILER within 40 miles of Manchester, accessible by rail. Beyond that distance, special arrangements made according to circumstances.

TWO GUINEAS PER ANNUM FOR CORRESPONDING MEMBERS, who receive copies of the Association's Monthly Report, and have the opportunity of consulting the Chief Engineer.

ROBERT TONGE, Secretary.

41, Corporation-street, Manchester, March, 1869.

BRITANNIA LIFE ASSURANCE AND INVESTMENT COMPANY.

(LIMITED).

CHIEF OFFICE.—1, LANCASTER PLACE, STRAND, LONDON.

This company has inaugurated a NEW PLAN OF POPULAR ASSURANCE for miners, by forming a MINERS' SICK AND ACCIDENT FUND.

Policies will be issued without respect to age at a uniform quarterly premium of 5s.

Managers of mines and other public works are earnestly requested to appoint correspondents in each of their works for enrolling members.

Apply, for further information, to—

PERCIVAL HINDMARSH, Secretary.

In the Court of the Vice-Warden of the Stannaries.

Stannaries of Cornwall.

IN RE SOUTH CONDRUR MINE.

TO BE SOLD, pursuant to an Order made in the Cause of King v. McIntosh and Others, dated the 17th day of February, 1869, at the Registrar's Office, at Truro, on Wednesday, the 7th day of April next, at Twelve o'clock at noon precisely, the

100 (6123rd) PARTS or SHARES of the defendant, George McIntosh; the 80 (6123rd) PARTS or SHARES of the defendant, Jane Barlow; the 40 (6123rd) PARTS or SHARES of the defendant, Harvie Anderson; the 20 (6123rd) PARTS or SHARES of the defendant, John Ewen; the 15 (6123rd) PARTS or SHARES of the defendant, J. Fox; the 10 (6123rd) PARTS or SHARES of the defendant, F. Foster Bankhardt; the 10 (6123rd) PARTS or SHARES of the defendant, Frederick Sharp; the 10 (6123rd) PARTS or SHARES of the defendant, William McGregor; the 10 (6123rd) PARTS or SHARES of the defendant, James Walton; the 5 (6123rd) PARTS or SHARES of the defendant, J. G. Smith; the 5 (6123rd) PARTS or SHARES of the defendant, Westney Fearon; the 5 (6123rd) PARTS or SHARES of the defendant, Jas. Josiah Shepherd; the 10 (6123rd) PARTS or SHARES of the defendant, J. A. Parker; the 5 (6123rd) PARTS or SHARES of the defendant, John Wilkinson; and the 5 (6123rd) PARTS or SHARES of the defendant, Wm. Holland respectively, Of and in the said MINE.

JOSEPH ROBERTS, Solicitor, Truro

(Agent for Messrs. R. W. Childs and Batten, 25, Coleman-street, London, Plaintiff's Solicitors).

Dated Registrar's Office, Truro, 25th March, 1869.

In the Court of the Vice-Warden of the Stannaries.

Stannaries of Cornwall.

IN RE STRAY PARK MINE.

TO BE SOLD, pursuant to an Order made in the Cause of Dunsterville v. Crawford and Others, dated the 5th day of March last, BY PUBLIC AUCTION, at the Registrar's Office, at Truro, on Wednesday, the 14th day of April inst., at Twelve o'clock at noon precisely, the

10 (908th) PARTS or SHARES of the defendant, Duncan Crawford; 25 (908th) PARTS or SHARES of the defendant, James Davis; 5 (908th) PARTS or SHARES of the defendant, Mary Jane Hambley; and the 1 (908th) PART or SHARE of the defendant, R. W. James, Of and in the said MINE.

HODGE, HOCKIN, AND MARRACK, Truro

(Agents for S. T. G. Downing, Plaintiff's Solicitor, Redruth).

Dated Registrar's Office, Truro, April 1st, 1869.

In the Court of the Vice-Warden of the Stannaries.

Stannaries of Cornwall.

IN THE MATTER OF THE COMPANIES ACT, 1862, and of the WHEAL NORTH GRYLLS MINING COMPANY (LIMITED).—ALL CREDITORS or CLAIMANTS of the ABOVE COMPANY, who have not received notice from the Registrar of the said Court that their claims have been already admitted, are hereby REQUIRED to COME IN and PROVE their SEVERAL DEBTS or CLAIMS at the Registrar's Office, Truro, on Thursday, the 15th day of April instant, at Eleven o'clock in the forenoon, or in default thereof they will be EXCLUDED from the BENEFIT of any DISTRIBUTION made before such proof. And for the purpose of such proof they are either to attend in person, or by their solicitors or competent agents, or (unless such attendance be required by the Registrar's summons) they are to send affidavits of their several debts or claims to the Assistant Registrar of the Court, at Truro, such affidavits being sworn either before some Commissioner of the said Court, or before any Court Judge, Justice, or any Commissioner of one of the Superior Courts, lawfully authorised to take and receive affidavits and affirmations.

E. SMIRKE, Vice-Warden.

FREDERICK MARSHALL, Assistant Registrar of the said Court, Cornwall.

Dated Registrar's Office, Truro, April 1st, 1869.

In the Court of the Vice-Warden of the Stannaries.

Stannaries of Cornwall.

IN THE MATTER OF THE COMPANIES ACT, 1862, and of the WHEAL FURSON MINING COMPANY.—By direction of His Honour the Vice-Warden, Notice is hereby given that on Wednesday, the 14th day of April instant, at Eleven o'clock in the forenoon, at the Registrar's Office, at Truro, in the county of Cornwall, this Court will PROCEED to MAKE a CALL of FIFTEEN SHILLINGS PER SHARE on all the contributories of the above-named company, settled under Clause A.

All persons interested therein are entitled to attend at the time and place aforesaid to offer objections to such call.

E. SMIRKE, Vice-Warden.

FREDERICK MARSHALL, Assistant Registrar of the said Court.

Dated Truro, April 1st, 1869.

In the Court of the Vice-Warden of the Stannaries.

Stannaries of Cornwall.

IN THE MATTER OF THE COMPANIES ACT, 1862, and of the BOSWORTHEN AND PENZANCE CONSOLS UNITED MINING COMPANY (LIMITED).—By direction of His Honour the Vice-Warden, Notice is hereby given that on the 15th day of April instant, at Eleven o'clock in the forenoon, at the Registrar's Office, at Truro, in the county of Cornwall, the Court will PROCEED to MAKE a CALL of SIX POUNDS PER SHARE on all the contributories of the above-named company settled under Clause A.

All persons interested therein are entitled to attend at the time and place aforesaid, to offer objections to such call.

E. SMIRKE, Vice-Warden.

FREDERICK MARSHALL, Assistant Registrar of the said Court.

Dated Truro, April 1st, 1869.

TO SPECULATORS.**SLATE QUARRIES FOR SALE IN THE ISLE OF MAN.**

HOUSES AND MATERIALS, &c.

MR. RABY respectfully announces that he is instructed by the Liquidator to SELL, BY AUCTION, on Wednesday, April 21, 1869, all and singular the extensive SLATE QUARRIES belonging to the

MANX SLATE COMPANY (LIMITED), Situate at GLENRUSHEN, in the parish of PATRICK, in the ISLE OF MAN.

The quarries are held under a lease from the Crown, dated 12th July, 1863, for 21 years, at a royalty of 1-16th, with a minimum royalty of £50 per annum, to merge into the royalty when it exceeds that amount, with a dead rent of £1 per annum.

The grant is very extensive, containing an area of 6906 acres, all in the clay-slate formation. The quarries have been wrought by means of galleries in the side of the mountain, from which large quantities of roofing slate have been raised and sold. They are supplied with all the necessities for carrying on an extensive business, the PLANT consisting of railways, water-wheels, with slate-sawing machine, tools of every kind required, quantities of railway bars, numerous wagons, cart, stable utensils and horse-gearing, smithy implements, contents of joiners' shops, furniture of offices and manager's room, saw-mill machinery, balke, shaft heads and other timber, water-wheel (20 ft. in diameter, 3 ft. 3 in. face), boxes, trough (976 ft.), scrap iron, &c., &c.

N.B.—The whole will be offered in one lot, and, if not sold, will there and then be put up in separate lots to suit the convenience of purchasers.

Capt. CAMERON, of Glenfaba House, near Peel, will show the property, and give any further information required; also any information required, and abstract of title, &c., will be given on application to SILAS EVANS, Esq., Liquidator, at 23, Waring-street, Belfast.

Catalogues of plant may be had for a stamped envelope from the Auctioneer, Douglas, Isle of Man.

The auction will take place at the office in the quarry, at 11 o'clock, prompt.

CLEVELAND DISTRICT.**TO IRONMASTERS AND CAPITALISTS.****VALUABLE IRONSTONE PROPERTY FOR SALE.**

TO BE SOLD, BY PRIVATE CONTRACT, A VALUABLE IRONSTONE LEASEHOLD PROPERTY in the CLEVELAND DISTRICT, near a shipping port, and intersected by two main lines of railway.

The mine is in full working order, and capable of a very large production; the property includes COTTAGES, WORKSHOPS, PUMPING and WINDING ENGINE, PLANT, TOOLS, &c. There is an excellent site at the mine for the erection of furnaces and rolling mills. Iron of excellent quality can be made on the spot at a lower price than in any other district, and from its large supplies are now regularly sent to Scotland and Wales.

The property has to be sold in consequence of the death of the proprietor, but the executors are willing to allow a portion of the purchase-money to remain on security.

Further particulars may be obtained from Messrs. G. A. CRAWLEY, ARNOLD, and GREEN, Solicitors, 20, Whitehall-place, London.

NORTH DEVON SILVER-LEAD MINE,

COMBARTON, NEAR ILFRACOMBE.

TO BE SOLD, BY PRIVATE CONTRACT, in One Lot, the WHOLE of the MACHINERY of the above mine, consisting of a 28 and 56 in. Sims' combined cylinder ENGINE, with 10 ton tubular BOILER; 50 fms. 8 and 9 in. PUMPS; a WATER-WHEEL; ORE CRUSHER; 4 heads STAMPS; and all other materials necessary for the working of the mine, the whole of which is in excellent condition.

A renewal of the lease, comprising more than 500 acres, may be obtained on very easy terms.

The mine is well situated in regard to the shipment of coals, ores, &c., and contains very productive silver-lead lodes, one of which was for some time worth more than £100 per fathom.

Apply to Mr. THOMAS FIDLER, Newbury.

NORTH WALES—QUEEN'S FERRY, FLINT.

CLOSE TO THE RAILWAY.

TO BE SOLD OR LET, DESIRABLE FREEHOLD MANUFACTURING PREMISES, with ENGINE-POWER and LAND.—A plot of about one acre, with substantial factories, engine-house chimneys, stable, outbuildings, and sheds, suitable for any manufacturing purpose. ENGINE of most recent construction, and BOILER nearly new.

For further particulars, apply to JOHN TEMPLE, 32, Redcross-street, Liverpool.

TO CAPITALISTS AND OTHERS FAMILIAR WITH COPPER MINING.

RICH VEINS OF COPPER ORE (Sulphuret and Grey) have been FOUND on the BANKS of the NIPISIGUIT RIVER, Province of NEW BRUNSWICK. The grey ore yielded on analysis in England 60 per cent. of copper. The veins are from a few inches to 2½ feet wide. The Harbour of Bathurst is but thirteen miles distant, and the tract of the Intercolonial Railway, now in course of construction, about six.

The proprietor of the land, being unacquainted with mining operations, is DESIROUS either TO SELL the PROPERTY on moderate terms, or TO JOIN an EXPERIENCED PARTY or COMPANY in WORKING these LODES. Indications of other mineral lodes are to be found at various places within a circuit of 15 to 20 miles, chiefly in wild Crown lands, the right to which might be obtained on easy terms, if early steps be taken with that object, before they attract more general attention.

Further information may be obtained on application to HENRY W. BALDWIN, Esq., Bathurst, New Brunswick.

Bathurst, N.B., 5th February, 1869.

FOR SALE, BY PRIVATE TENDER, the LAPILLA PYRITES

MINES, Province of HUELVA (within one and a-half mile of the Tharsis Railway), SPAIN.

This mine comprises FOUR PERTINENCIAS or SETTS of CUPREOUS SULPHUR PYRITES of the finest quality, fully opened out, and capable of producing at present 1000 tons per month, which quantity can immediately be doubled by further development of the ground.

The lode has been opened out on the "pillar and room" system of mining, proving so far 200 yards in length, 48 yards wide, depth known 30 yards of solid mineral.

The situation is well adapted for utilising any poor ores by the cementation process.

Ten thousand tons of this pyrites have been supplied to Messrs. John Hutchinson and Co., Chemical Manufacturers, Widnes, Lancashire, who will testify to the value of the mineral.

Further particulars may be obtained by application to SYDNEY YOUNG and Co., 33, Gracechurch-street, London; JOHN RICHARDSON, 4, Clarence-buildings, Manchester; or JAMES M. BURNUP, Newcastle-upon-Tyne, with one of whom the tenders must be lodged on or before the 1st May, 1869.

NORTHAMPTONSHIRE IRON ORE.

TO BE LET, on royalty, ONE HUNDRED ACRES of IRON ORE, about seven miles from NORTHAMPTON. The IRONSTONE has been proved, and is of the best quality, lying near to the surface.

It is most convenient for working, and of easy access from the Northampton and Peterborough Railway. The nearest station to the property is Castle Ashby.

For further particulars, apply to Messrs. THYNNE and THYNNE, 11, Great George-street, Westminster, S.W.; or to Mr. SAMUEL BAILEY, Mining Engineer, The Piek, Walsall.

A FESTINOG SLATE QUARRY ON SALE.

THE BWLCH-Y-SLATER SLATE QUARRY, situated in the parish of FESTINOG, and in the centre of that well-known slate district, is NOW ON SALE, BY PRIVATE TREATY, owing to the death of the late proprietor.

The quarry produces slates of first-class quality, of which there is apparently an inexhaustible supply. It is provided with the requisite plant for being properly and profitably worked, and has already been worked to a profit, and is parted with solely owing to the death of the proprietor. It is situated close to the Portmadoc and Festinog Railway.

For particulars, apply to Mrs. WILLIAMS, Bannafawr, Dyffryn, Carnarvon.

TO CAPITALISTS AND OTHERS.**VALUABLE GREEN SLATE QUARRIES TO BE LET.**

TO BE LET, BY TENDER, the WHOLE of these SPLENDID GREEN SLATE QUARRIES, known as—

THE BUTTERMERE SLATE QUARRIES.

IN CUMBERLAND, which comprise, amongst others, the HONISTER CRAGG QUARRY, the BWE CRAIG QUARRY, and the DUBBS QUARRY.

These quarries are about equidistant from the towns of Cockermouth and Keswick, whence there is railway communication to the sea and to all parts of Great Britain.

The slate produced from the quarries is of a beautiful "sea-green" tint, and its well-known durability renders it peculiarly suitable for the roofing of churches, public buildings, and mansions. Valuable veins of slate and flags exist in connection with those already worked, and may be included in the tender. The quantity capable of being raised is practically illimitable.

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York, March, 1869.

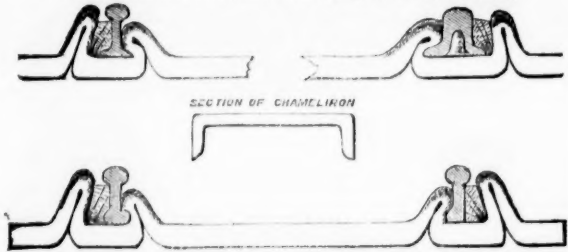
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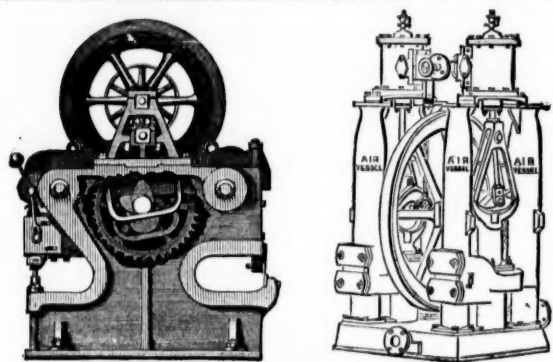


The SLEEPER can be made to suit any required section of rail, either double-headed, flat-bottomed, or bridge, and the channel section of iron, of which the sleeper is made, can be manufactured of various breadths, and of weights varying from 6 lbs. to 20 lbs. per yard.

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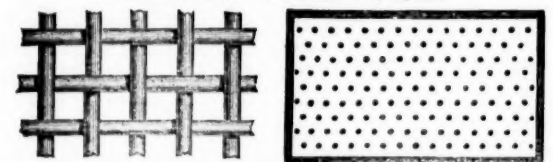
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Fig. 86.
GWYNNE & CO'S
IMPROVED
PLUNGER
HAND PUMP.



Fig. 84.
GWYNNE & CO'S
DOUBLE-
ACTING
PUMPING-
ENGINE.

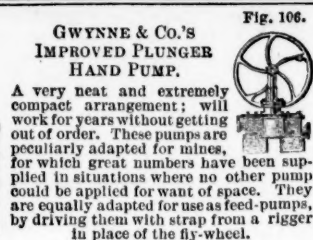


Fig. 106.
GWYNNE & CO'S
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TURBINE
WATER-WHEEL.

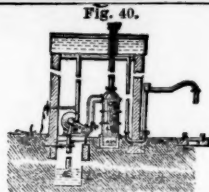


Fig. 40.
GWYNNE & CO'S
PATENT
COMBINED
STEAM-PUMP.



Fig. 43.
GWYNNE & CO'S
PATENTED
WIND-POWER
PUMPING
MACHINERY.



Fig. 94.
GWYNNE & CO'S
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BULLOCK OR
HORSE POWER
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MACHINERY.

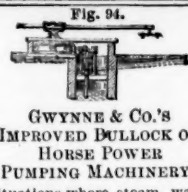


Fig. 144.
GWYNNE & CO'S
IMPROVED
VERTICAL
STEAM-ENGINE.



Fig. 146.
GWYNNE & CO'S
IMPROVED
HORIZONTAL
HIGH-PRESSURE
STEAM-ENGINE.



Fig. 85.
GWYNNE & CO'S
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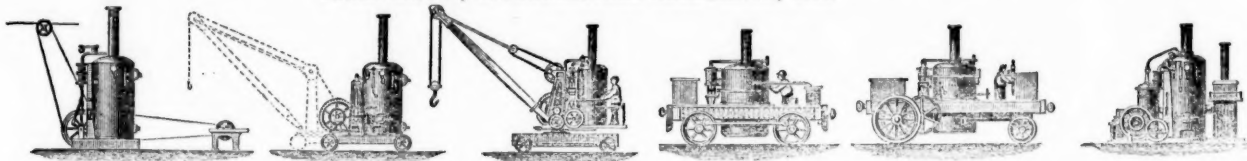
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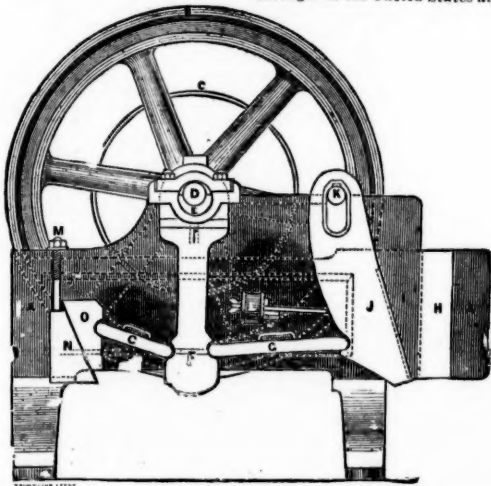
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In Chancery.

BLAKE v. ARCHER, NOVEMBER 12, 1867.

His Honour the Vice-Chancellor WOOD having found a VERDICT in FAVOUR of the PLAINTIFFS in the above Cause, establishing the VALIDITY of BLAKE'S PATENT, and made a DECREE for an INJUNCTION to RESTRAIN the DEFENDANTS, Messrs. THOMAS ARCHER and SON, of Dunston Engine-Works, near Gateshead-on-Tyne, from INFRINGING such PATENT, and ordering them to pay to the Plaintiffs the costs of the Suit.

ALL PERSONS are hereby CAUTIONED against MANUFACTURING, SELLING, or USING any STONE BREAKERS similar to BLAKE'S, which have not been manufactured by the Plaintiffs. Application will forthwith be made to the Court of Chancery for INJUNCTIONS AGAINST ALL PERSONS who may be found INFRINGING BLAKE'S PATENT after this notice.

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The work will contain upwards of fifty maps, plans, and sections.

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THE MINING SHARE LIST.

BRITISH DIVIDEND MINES.

Shares.	Mines.	Paid.	Last Pr.	Business.	Total divs.	Per share.	Last paid.
1500	Alderley Edge, c, Cheshire	10 0 0	—	—	10 6 8	0 5 0	Jan. 1869
200	Botallack, l. c, St. Just	91 5 0	250	—	528 5 0	10 0 0	Feb. 1869
4000	Brookwood, c, Buckfastleigh	12 0 0	—	—	0 12 6	0 2 6	Aug. 1868
2000	Bronze, l, Cardigan	11 0 0	20 1/2	—	10 17 0	0 10 0	Jan. 1869
5000	Bryn Gwyn, l, Flint	4 0 0	—	—	0 5 0	0 5 0	June 1868
6400	Cashwell, l, Cumberland	2 10 0	—	—	0 3 0	0 1 6	Aug. 1868
916	Cargill, s-l, Newlyn	15 5 7	—	—	15 15 0	0 10 0	Jan. 1869
1280	Chanticleer, l, Flint	0 7 8	—	—	0 1 0	0 0 6	Nov. 1868
2450	Cook's Kitchen, c, Illogan	19 14 9	16	16 17	1 17 0	0 5 0	Jan. 1869
509	Creechbawse and Penkelt, l	—	—	—	2 5 0	1 5 0	April 1868
867	Cwm Erwin, l, Cardiganshire	7 10 0	—	—	29 13 0	0 10 0	Jan. 1869
128	Cwmystwith, l, Cardiganshire	6 0 0	—	—	385 10 0	2 0 0	Feb. 1869
280	Darwen Mines, s-l, Durham	300 0 0	—	—	177 0 0	2 10 0	July 1868
1024	Devon Gt. Consols, c, Tavistock	1 0 0	310	300 310	1128 0 0	4 0 0	Mar. 1869
656	Ding Dong, t, Gwilt	49 14 6	—	—	2 0 0	1 10 0	Mar. 1869
358	Dolcoath, c, l, Camborne	128 17 6	500	475 500	874 10 0	10 0 0	Feb. 1869
6144	East Caradon, c, St. Cleer	2 14 6	8 1/2	8 1/2	14 11 6	0 2 0	July 1867
300	East Darwen, l, Cardiganshire	32 0 0	—	85	166 10 0	2 0 0	Mar. 1869
128	East Pool, t, c, Pool, Illogan	24 5 0	—	—	457 10 0	5 0 0	Mar. 1869
1906	East Wheal Lovell, l, Wendron	3 5 0	9 1/2	9 1/2	4 11 6	0 10 0	Jan. 1869
2800	Foxdale, l, St. Agnes	3 18 6	4	3 1/2	72 10 0	0 10 0	Mar. 1869
5000	Frank Mills, l, Christow	3 10 6	—	—	3 9 6	4 0 0	Feb. 1869
3250	Gawton, c, Tavistock	3 10 6	—	—	0 3 0	0 3 0	Jan. 1868
12000	Great Laxey, l, Isle of Man	4 0 0	20	19 19 1/2	10 4 0	0 10 0	Mar. 1869
3000	Great Northern Manganese	5 0 0	—	—	—	5 p.c.	Feb. 1869
5000	Great Wheal Vor, l, c, Helston	40 0 0	16 1/2	17 17 1/2	14 1 0	0 5 0	Mar. 1869
1024	Herodfoot, l, near Liskard	8 10 0	46	44 46	49 10 0	1 10 0	Feb. 1869
165	Levant, c, l, St. Just	10 8 1	30	—	1099 0 0	4 0 0	Jan. 1869
400	Lisburne, l, Cardiganshire	20 0 0	—	—	515 0 0	3 0 0	Oct. 1868
3000	Maceys Valley, c, Cardigan	4 10 6	8 1/2	8 1/2	4 19 0	0 5 0	Jan. 1869
3000	Minera Boundary, l, Wrexham	1 0 0	—	—	0 13 0	0 3 0	Mar. 1869
1800	Minera Mining Co., l, Wrexham	25 0 0	—	—	248 13 6	5 0 0	Feb. 1869
20000	Mining Co. of Ireland, c, l, c, l	7 0 0	11 1/2	11 1/2	—	9 p.c.	July 1868
40000	Mynydd Iron Ore	3 5 0	—	—	0 11 6	0 3 0	Feb. 1869
2000	North Levant, t, c, St. Just	10 12 0	12	11 1/2	0 5 0	0 5 0	Mar. 1869
2000	Parys Mines, c, Anglesey	50 0 0	—	—	162 10 0	2 10 0	Aug. 1868
5000	Penhalls, l, St. Agnes	3 0 0	—	—	0 8 6	0 2 6	Jan. 1869
12800	Prince of Wales, l, Caistock	0 12 6	1 1/2	21s. 23s.	0 8 6	0 10 0	Nov. 1868
1120	Providence, t, Uney Lelant	10 6 7	42	40 41	88 2 6	1 10 0	Mar. 1869
512	South Caradon, c, St. Cleer	1 5 0	—	—	612 10 0	5 0 0	Mar. 1869
6000	South Darwen, l, Cardigan	3 6 6	—	—	0 14 6	0 1 6	Feb. 1869
937	South Wh. Crofty, c, Illogan	24 10 0	13 1/2	13 13 1/2	1 10 0	0 10 0	Feb. 1869
496	So. Wh. Frances, c, Illogan	18 19 9	17	—	374 13 6	1 0 0	Mar. 1869
508	Summer Hill, l, Mold	3 18 6	—	—	2 5 0	0 5 0	Mar. 1869
6000	Tinroff, c, l, Helston	11 10 0	22	21 22	20 11 0	0 10 0	Jan. 1869
12000	Van, l, Llandudno	4 5 0	23	23 25	8 0 0	0 10 0	Jan. 1869
3000	W. Chiverton, l, Perranzabuloe	10 0 0	52 1/2	51 52	33 7 6	2 0 0	Feb. 1869
5000	West Godolphin, t, c, Breage	0 1 0	—	—	0 2 0	0 2 0	Dec. 1867
400	W. Wheal Seton, c, Camborne	47 0 0	205	202 1/2	622 0 0	6 0 0	Feb. 1869
512	Wheal Basset, c, Illogan	5 2 6	75	70 75	632 10 0	1 0 0	June 1868
1024	Wheal Friendship, c, Tavistock	20 0 0	45	42 1/2	300 10 0	0 6 0	Mar. 1869
512	Wheal Jane, s-l, Kea	15 12 6	45	42 1/2	3 13 0	0 2 0	Mar. 1869
4295	Wheal Killy, t, St. Agnes	5 6 6	5 1/2	5 1/2	67 15 0	0 17 6	Mar. 1869
1024	Wheal Mary Ann, l, Menheniot	8 0 0	19	16 18	403 3 0	52 10 0	Feb. 1869
80	Wheal Owles, t, St. Just	70 0 0	360	—	254 15 0	2 0 0	Feb. 1869
396	Wheal Seton, c, l, Camborne	68 10 0	75	70 75	1 0 0	0 10 0	Dec. 1867
3000	Whitewell Lead, Clitheroe	0 5 0	—	—	49 6 0	0 5 0	Mar. 1869
17000	Wicklow, c, l, Wicklow	2 10 0	11 1/2	—	—	—	—

FOREIGN DIVIDEND MINES.

Shares.	Mines.	Paid.	Last Pr.	Business.	Total divs.	Per share.	Last paid.
25000	Aiamillos, l, Spain	2 0 0	—	1 1/2	0 6 6	0 2 0	Mar. 1869
20000	Australian, c, South Australia	7 7 6	—	—	0 1 6	0 6 0	Aug. 1868
15000	Cape Copper Mining	7 0 0	—	12 1/2	3 17 6	0 15 0	Nov. 1868
30000	Central American Association	1 10 0	—	—	1 0 8	0 6 0	Mar. 1869
7162	Don Pedro North del Rey	0 14 6	4 1/2	4 1/2	0 8 0	0 2 6	Feb. 1869
20000	English and Australian	2 0 0	—	—	1 14 0	0 3 0	Mar. 1869
75000	Fortuna, l, Spain	2 0 0	—	—	23 10 0	0 15 0	June 1867
20000	Gen. Mining Assoc., Nova Scotia	20 0 0	—	—	10 p.c.	—	Aug. 1868
10000	Gonnesa, l, Sardinia	5 0 0	—	—	0 1 0	0 6 0	Nov. 1868
68000	Kapunda Mining Co., Australia	1 0 0	—	—	11 18 4	0 3 4	Mar. 1869
15000	Linares, l, Spain	3 0 0	3 1/2	2 1/2	10 p.c.	—	Yearly
50000	Panuelillo, c, Chili	3 0 0	1 1/2	1 1/2	—	—	—
6000	Peel River Land and Mineral	100 0 0	—	—	5 6 2	0 19 7	Dec. 1868
10000	Ponteland, s-l, France	20 0 0	12	11 13	1 1 6	0 1 6	Jan. 1869
100000	Port Phillip, c, Australia	1 0 0	—	—	10 p.c.	—	Nov. 1868
12000	Port Phillip, c, Australia	1 0 0	—	—	81 10 0	4 5 0	Dec. 1867
1000	St. John del Rey, Brazil	15 0 0	18 1/2	18 1/2	7 1/2 p.c.	—	Dec. 1868
4000	Swedish Sulphur Ore	2 10 0	—	—	2 2 6	0 12 0	Nov. 1868
13500	Vancouver Coal Mining	6 0 0	8	7 1/2	0 9 7	0 7 0	July 1868
50000	Victoria (London) £20000 £1 pd., £20000 12s. 6d. pd.]	1 0 0	—	—	0 19 6	0 2 6	May 1866
40000	West Canada Mining Co.	1 0 0	—	—	—	—	—

NON-DIVIDEND FOREIGN MINES.

Shares.	Mines.	Paid.	Last Pr.	Bus. done.	Last Call
50000	Anglo-Argentine, s, Argentine Republic*	1 0 0	—	—	—
100000	Anglo-Brazilian, g†	0 10 0	—	¾, ¼ ¾	Nov. 1866
12500	Anglo-Italian, g†	0 10 0	—	¾ ¾	Jan. 1868
20000	Australian United, g	1 0 0	—	—	Mar. 1868
2464	Burra Burra, c, South Australia†	5 0 0	—	—	—
20000	Capula, s, Mexico*	1 17 6	—	—	May 1868
30000	Chontales, g, s, Nicaragua*	5 0 0	—	1½, 1½ 1½	Mar. 1868
12000	Cobre Copper Company, c, Cuba†*	16 10 0	—	—	Jan. 1868
10000	Copago Mining Company, Chilit†	10 0 0	—	—	—
10000	Copago Smelting, Chilit†	10 0 0	—	—	April 1868
300	Copper Mines of South Australia* [150 £100 pd.,	150 £70 pd.]	—	—	Nov. 1866
15000	Chico Silver Mining and Reduction Company*	5 0 0	—	—	Nov. 1866
40000	Fortune Copper Mining Co. of Western Australia	2 0 0	—	—	Fully pd.
50000	Frontino and Bolivia, g, New Granada*	1 17 6	—	¾, 19s. 21s.	May 1868
150000	General Brazilian*	0 10 0	—	¾, 16s. 16s.	Feb. 1869
80000	Great Northern, c, South Australia†	1 11 6	—	—	Sept. 1868
50000	Javali, g, Nicaragua*	2 0 0	—	—	Jan. 1868
7927	Lusitania (Portugal)†	2 10 0	—	—	Dec. 1868
85640	Marlquita, g, s, New Granada*	2 0 0	—	—	Feb. 1868
12500	Nerbudda Coal and Iron, India*	6 0 0	—	—	Dec. 1867
10000	New Quebrada, c, Venezuela*	4 4 0	—	—	Feb. 1868
80000	Pestarena United, g, Italy*	2 17 6	—	1 1½	—
10178	Rhenish Consolidated, [8000 £5 pd., 4178 £2 10s. pd.]	—	—	—	May 1868
100000	Rossa Grande, g, Brazil†*	0 14 0	—	1½, 1½ 1½	June 1867
15000	San Pedro del Monte, s, Mexico*	4 0 0	—	—	Sept. 1866
10000	San Roque, l, Spain	5 0 0	—	—	Fully pd.
50000	Sao Vicente, Brazil†*	0 4 0	—	¾, 4s. 6s.	Oct. 1868
100000	Taquaril, g, Brazil†	7 6	—	¾, 1½ 1½	Oct. 1868
43174	United Mexican, s, Mexico†*	28 1 2	—	1½, 1½ 2	May 1868
30000	Val Antigua, c, Italy*	1 2 6	—	—	—
5000	Vesuviana, g, Italy*	8 0 0	—	—	Aug. 1868
45000	Victor Emanuel, c, Italy*	1 0 0	—	—	Fully pd.
20000	Washoe, g, Nevada	5 0 0	—	—	Fully pd.
20000	Worthing, c, South Australia*	1 0 0	—	¾, ¼ ¾	Fully pd.
75000	Yorke Peninsula, South Australia	1 0 0	—	—	Fully pd.
45000	Yudanamutana, c, South Australia†*	3 0 0	—	1½, 1½ 1½	Fully pd.